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Walden University

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Walden University

College of Social and Behavioral Sciences

This is to certify that the doctoral dissertation by

Angelina Marie Feagin

has been found to be complete and satisfactory in all respects,
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Walden University
2019

Abstract

Stigma, Help-Seeking Behaviors, and Use of Services Among College Students with Self-Reported Posttraumatic Stress Disorder

by

Angelina Marie Feagin

MS, Walden University, 2008

BA, California State University Dominquez Hills, 2006

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

May 2020

Abstract

People experiencing mental health illnesses such as posttraumatic stress disorder (PTSD) who do not receive mental health treatment services (MHTS) are at a higher risk of committing crimes. The research problem of this study was to fill the gap in the literature concerning gender, sex at birth, and gender identity differences as predictors of attitudes toward perceived stigma in help-seeking behavior (HSB) and use of MHTS. The sample size included 5,000 participants in the de-identified secondary data set of students from 26 universities and colleges across the United States. The Healthy Minds Study collected these data in 2016-2017 using the Patient Health Questionnaire. To address the research questions guiding the study, one-way ANOVA was used to test for differences in groups based on sexual orientation and gender identity for measures of perception of stigma, use of MHTS, and HSB regarding receiving mental health services. Between groups, MANOVA was used to assess differences in groups based on gender identity and sexual orientation on a linear combination of the dependent measures of perception of stigma in use of MHTS and HSB. There were directional differences between groups based on independent variables gender and sexual orientation on measures of the dependent variables perception of stigma in use of MHTS and of HSB. However, a closer examination of the results indicated that the effect size associated with the directional differences was weak. The results from this study may help clinicians to identify treatment challenges related to biological sex and gender identity and help to influence future interventions to better accommodate the contemporary population of men and women experiencing symptoms of PTSD.

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Dedication

First, I thank God in Jesus name for giving me this opportunity to pursue my deepest desire in furthering my educational goals.

I dedicate this proposal my three wonderful children, Deonte, Michael, and MiShalina, for always listening to me say I am doing school work or I am getting ready to do school work. Thank you for supporting me sharing my dream.

To my strong mom, Willie Jean Feagin, who taught me to respect myself and others, and do all things by faith.

Acknowledgments

I appreciate and acknowledge my wonderful committee members. To my outstanding Committee Chair, Dr. Mona Hanania, who pushes me beyond my limit, best mother figure/chair in the world; and my Methodologist, Dr. William Tetu, who is extremely helpful and patient, the best methodology expert I have the pleasure of working with. Completing this Proposal would not have been possible without such a supportive committee.

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Chapter 1: Introduction to the Study

Mental health treatment is vital to the mental wellness and personal satisfaction of individuals who have a traumatic event (Steffen, Kosters, Becker, & Puschner, 2009). Traumatic events can include a natural disaster, serious accident, terrorist act, war/combat, assault, or other personal trauma (Steffen et al., 2009). Mental health treatment is especially important in communities that are not able to accommodate mental health therapy in a professional setting (Steffen et al., 2009). Mental health disorders are among the leading causes of disability in the United States (Steffen et al., 2009). In 2011, over 10 million adults reported unmet mental health needs; in other words, they felt that even though they needed treatment for mental health problems, they received insufficient or no mental health care (Alang, 2015). According to Han et al. (2015), 62.9% of adults in the United States received mental health treatment in 2012. Research has demonstrated that people experiencing mental health problems who are not receiving mental health treatment are at a higher risk of committing crimes; in addition, they have a poorer quality of life, shorter life expectancy, and an increased risk of suicide (Han et al., 2015).

Demographic variables, such as gender, sexual orientation, age, marital status, and living circumstances may impact treatment (Diener & Ryan, 2009; Han et al., 2015; Keyes & Waterman, 2003; Roothman, Kirsten & Wissing, 2003; Temane & Wissing, 2006). These factors may influence psychological well-being and quality of life (Diener & Ryan, 2009; Han et al., 2015; Keyes & Waterman, 2003; Roothman et al., 2003; Temane & Wissing, 2006). While both men and women in the United States experiencing

symptoms of posttraumatic stress face hardship, Keyes (2002) found that the females experienced poorer mental health outcomes.

Demographic variables and gender differences influence treatment maintenance and outcomes of individuals who may be experiencing symptoms of posttraumatic stress disorder (PTSD; Diener & Ryan, 2009; Keyes & Waterman, 2003; Roothman et al., 2003). The most common treatments for PTSD originate from the field of cognitive behavioral therapy (CBT); for example, cognitive therapy, prolonged exposure, and cognitive processing therapy (Foa et al., 2009). As indicated by the International Society for Traumatic Stress Studies (ISTSS, 2005; Foa et al., 2009) trauma-focused CBT is the best treatment for PTSD. When individuals who have PTSD participate in mental health treatment, it enhances their capacity for self-regulated emotions and thoughts (Johnson & Zlotnic, 2006). As people improve their perceived controllability over seeking mental health treatment, a sense of stigma regarding seeking treatment may be reduced, and universal respect for individual differences may be embraced (Johnson & Zlotnic, 2006). Individuals experiencing PTSD symptoms exhibit a perceived competency for changing behaviors and patterns of thoughts by addressing the difficulties caused by negative thinking or behavior (Martin, 2013).

Gender and type of trauma have been identified as factors influencing treatment outcomes among individuals experiencing PTSD symptoms. In regard to gender differences, women with PTSD seek and get more social support than men, which may influence their recovery during treatment (Cason, Saijo, & Yamato, 2002; Solomon, Gelkopf, & Bleich, 2005). Supportive and counter-supportive communications have a

more significant impact on women with PTSD than on men (Ahern et al., 2004; Andrews et al., 2003; Olff, 2012). Lange, van de Ven, Schrieken, and Emmelkamp (2001) and Sijbrandij et al. (2007) asserted that males might have a higher tendency to drop out of a treatment program than females, which may account for female predominance in treatment statistics. Sijbrandij et al. (2007) also suggested that if men encounter a change regarding treatment, they are more likely to withdraw earlier than females, thereby explaining some of the variances in treatment data. Males often report combat trauma from serving in the military; females more frequently present adolescent trauma and rape (Tolin & Foa, 2006).

The subsequent sections in this chapter include summaries of the existing literature that provide an overview of biological sex and gender identity, the perception of stigma, use of services, and help-seeking behaviors in individuals who may be experiencing symptoms of PTSD. The problem this research addressed is the gap in literature concerning gender identity as a predictor of attitudes towards perceived stigma, help-seeking behaviors, and use of services (Bilican, 2013).

Background

About 77% of individuals who receive mental health treatment have a diagnosis; people who encounter mild psychological troubles and do not have a diagnosis seek less treatment (Andrews, Issakidis, & Carter, 2001). Less than 50% of young adults' report experiencing mental health-related challenges (Sternlieb & Munan, 1972; Walker et al., 1982). However, individuals often neglect to reach out to mental health services (Wang et al., 2005; Young, Klap, Sherbourne, & Wells, 2001). Over 65% of young adults with

difficult issues fail to seek help (Dubow, Lovko, & Kausch, 1990). Between 36% and 68% of people with severe mental problems seek help (Bijl and Shortridge-Baggett, 2002). In the veteran population, use of mental health treatment for PTSD is encouraged in various clinical environments; however, only a small number of PTSD patients receive psychotherapeutics (Harpaz-Rotem, Libby, & Rosenheck, 2012; Olfson & Marcus, 2010). Just over 30% of veterans with PTSD acquire any treatment in the year after diagnosis; even fewer get a satisfactory measure of treatment (Cully et al., 2008; Mott, Hundt, Sansgiry, Mignogna, & Cully, 2014).

Society tends to have a negative perception of individuals who experience mental troubles, which adds to social detachment, misery, and difficulties in employment (Crisp, Gelder, Meltzer, Rix, & Rowlands, 2000). People who do not experience psychological problems see individuals participating in treatment for psychological problems as unstable compared to persons who are not in treatment (Ben-Porath, 2002). Therefore, the stigma associated with seeking professional psychological help is a significant barrier to entering treatment (Dovidio & Sibicky, 1986).

The assumption that young adults are self-sufficient proves to be a barrier for seeking help from mental health professionals as well (Rickwood et al., 2005). Between 76% and 86% of young people experiencing mental issues (involving dating, peer pressure, symptoms of depression, being tired, issues with natural guardians, suicidal ideation, feeling obese, and controlled substance abuse) report that they are dealing with problems alone (Dubow et al., 1990). Disturbed emotional youth frequently seek help from friends; however, relying on family and friends can interfere with getting

professional psychological help (Offer et al., 1991; Bilican, 2013). About 89% of youth in need refer to friends, 81% refer to family, and 32% refer to ministry (Bilican, 2013). Conversely, less than 10% of young people make use of treatment from mental health services (Dubow et al., 1990). Students whose peer and family support systems are not readily available may have difficulty engaging in mental health services (Elhai & Schnider, 2007).

Some sociodemographic variables work as barriers to seeking help for issues related to mental health (Bilican, 2013). For example, males, older individuals, those of low socioeconomic status (SES), and those of low educational status are less likely to seek psychological help. Females are more inclined to seek psychological help than males and are more likely to process emotions (Ciarrochi et al., 2003; Fisher & Farina, 1995; Kuhl, Jarkon-Horlick, & Morrissey, 1997). Individuals who seek psychological help tend to be younger, have higher education levels, and have a higher family wage (Tijhuis et al., 1990). With college students, demographic characteristics may influence use of services (Elhai & Schnider, 2007). Trauma disclosure, depression severity, and the coping styles of undergraduate college students who had a significant other and were experiencing PTSD symptoms were related to engaged, dynamic, and avoidant adapting methods (Elhai & Schnider, 2007). According to Somerfield and McCrae (2000), there is a lack of research on coping styles and mental health outcomes. High SES students tend to express a desire for help with mental health disorders and sex-related issues, while low SES students tend to want help with a broad range of physical health concerns (Walker et al., 1982).

The stigma related to mental illness may be a critical factor in decreased help-seeking. Stigma may be defined as a process involving labeling, division, stereotype awareness and endorsement, prejudice, and discrimination in a context in which social, economic, or political power is practiced to the detriment of members of a social group (Link & Phelan, 2001). The perception of stigma regarding veterans' occupation may discourage mental health use among veterans (Hoge et al., 2004; Stecker et. al., 2010). According to Hundt et al. (2014), the more serious the illness, the less likely a person is to seek help, suggesting that veterans who do not use services might not be involved in therapy regardless of whether they may need it.

Problem Statement

The problem this research addressed was the gap in the literature concerning gender and gender identity differences as predictors of attitudes toward perceived stigma in help-seeking behaviors and use of mental health treatment services (Bilican, 2013). Perceived stigma is fearing a negative evaluation upon receiving mental health care (Deane & Chamberlan, 1994). The stigma of having psychological issues and the fear of being considered insane hinders the process of obtaining help (Kushner & Sher, 1989; Sirey et al., 2001; Jackson, Judd, Komiti, & Wrigley, 2005). Around 90% of individuals surveyed reported that a fear of being called insane keeps them from utilizing psychological services (Barbaro & Nelson, 1985). Understanding gender differences as indicators of and barriers to treatment is fundamental to improving engagement with mental health services (Gallegos et al., 2015). Wood and Eagly (2015) explained that psychologists studying gender often work within the realms of personality and interests

or social categories; empirical evidence suggests that sex and gender identity predict educational outcomes.

Therapy may influence individuals differently. Females who utilize treatment experience healthier and more supportive treatment outcomes than males (Ahern et al., 2004; Andrews et al., 2003; Olff, 2012). Beaulieu-Prévost, Guay, Belleville, & Marchand (2016) explained that females might get a significant amount of secondary benefits from treatment because they learn to cope more adaptively with stress, get more support from their friends and family, and have a better quality of life. These are essential factors in maintaining emotional well-being, enhancing a person's ability to cope with difficult life circumstances outside of and after therapy (Békés et al., 2016). Ahern et al. (2004) also found that women seeking treatment experience superior personal satisfaction.

These different outcomes may clarify why males have higher dropout rates from therapy than females (Lange et al., 2001; Sijbrandij et al., 2007). It is conceivable that males who encounter improvement in the early period of treatment will discontinue treatment because they assume that they are better and can do the rest on their own. It is likewise conceivable that the overlap between certain trauma types and gender also correlates to observable differences in mental health treatment-seeking (Békés et al., 2016). Males are more regularly exposed to combat trauma, physical assaults, and severe accidents (Breslau, 2002; Kessler et al., 1995). Females are more regularly exposed to childhood trauma and rape (Tolin & Foa, 2006). According to Mojtabai (2007), males have a more negative attitude than females regarding seeking mental health treatment; females have 1.41% odd of reporting a more positive attitude toward seeking treatment,

whereas only 1.00% of all males in the world reach out. However, Desrochers et al. (2016) suggested that fear of mental health treatment may prevent females from initiating the care they need.

The stigma against having psychological issues and the fear of participating in treatment hinders help-seeking behaviors (Kushner & Sher, 1989; Sirey et al., 2001; Wrigley, Jackson, Judd, & Komiti, 2005). There is some evidence that stigma obstructs help-seeking for mental health problems; however, the conflicting evidence demonstrates a need for further research (Clement et al., 2014).

Seeking help and referring to family and friends can interfere with getting professional psychological help (Bilican, 2013). The term *help-seeking* is used to signify all phases of seeking help, from initiation to engagement with care (Kovandžić et al., 2011). About 89% of youth in need refer to friends, 81% refer to family, and 32% refer to their ministry (Bilican, 2013). Students whose peer and family support systems are not readily available may have difficulty engaging in mental health services (Elhai & Schnider, 2007).

With college students, demographic characteristics may influence use of services (Elhai & Schnider, 2007). Trauma disclosure, depression severity, and the coping styles of undergraduate college students who had lost a significant other and were experiencing PTSD symptoms were found to be related to engaged, dynamic, and avoidant adapting methods (Elhai & Schnider, 2007). According to Somerfield and McCrae (2000) there is a lack of association between research on coping styles and mental health outcomes.

Most people discharged from psychological treatment neglect to seek follow-up treatment (Lamb & Bachrach, 2001). Further, Santiago, Kaltman, and Miranda (2013) established that low-income people who encounter significant anxiety and have increased distress and hostility frequently do not obtain mental health care despite their need. Santiago et al. (2013) suggested that psychological well-being impacts urban living, unemployment, marital status, level of education, and sexual orientation.

Treatment outcome studies should focus on biological sex and gender differences between men and women with PTSD. This study is unique in that it fills a gap in the literature, exploring gender identity as a predictor of attitudes towards perceived stigma, help-seeking behaviors, and use of services (Bilican, 2013). The results from this study may help to identify treatment challenges related to biological sex and gender identity and help to influence future interventions to better accommodate the contemporary population of men and women experiencing symptoms of PTSD.

Purpose of the Study

The goal of this research was to fill the gap in the literature concerning gender and gender identity differences as predictors of attitudes toward perceived stigma in help-seeking behaviors and use of mental health treatment services (Bilican, 2013). Perceived stigma is fearing a negative evaluation upon receiving mental health care (Deane & Chamberlan, 1994). The stigma against psychological issues and the fear of being considered insane hinders obtaining help (Kushner & Sher, 1989; Sirey et al., 2001; Jackson et al., 2005). Around 90% of individuals surveyed report a fear of being called insane that keeps them from utilizing psychological services (Barbaro & Nelson, 1985).

To address the research questions guiding the study, I conducted a multivariate analysis of variance (MANOVA) to include all dependent variables: perception of stigma, help-seeking behaviors, and use of services. This was followed by a univariate analysis of variance (ANOVA) that analyzed the independent variables gender, biological sex at birth, and gender identity differences in college students with PTSD symptoms as reported in the 2016-2017 Healthy Minds Study (HMS).

Theoretical Framework

In this study I used the following framework: social learning theory (Bandura, 2011), gender identity theory with regards to mental health treatment (Pauletti & Perry, 2011; Stets & Burke 2000; Tobin et al., 2010; Wood & Eagly, 2009), and identity threat theory relating to stigma (Crocker & Major, 1989). Social learning theory originated and transitioned from behaviorism and psychoanalysis theories (Freudian operant developmental theories) and was developed in 1986 by Sears and Bandura (Bandura, 1986). The process incorporates perception, learning, attention, retention, motor reproduction, and motivation (Bandura, 1986).

Gender and gender identity differences were drawn from the theoretical framework known as gender identity theory (Burke & Stets, 2000; Tobin et al., 2010; Wood & Eagly, 2009). Gender identity refers to the degree to which an individual perceives the self to be masculine or feminine, given what it means to be masculine or feminine in each society (Pauletti & Perry, 2011; Stets & Burke 2000; Tobin et al., 2010; Wood & Eagly, 2009). Suggested by Ritter and Terndrup (2002), the most modern theories of biological sex formation are (a) prebirth hormone development and genetic

inheritance, and (b) family and psychosocial factors (e.g., family structure, family dynamics, early sexual experience, and gender nonconformity). A couple of definitions explain the nature of sexual identity. The first definition, according to Wood and Eagly (2015), suggests gender identity as traits associated with perceptions of being masculine or feminine. The second definition explained by Wood and Eagly (2015) conceptualizes gender identity as identifying the self socially as either male or female. Wood and Eagly (2015) explained that gender practitioners in psychology often work with one or another tradition, and empirical evidence suggests that both gender identities predict educational outcomes. Stigma specifically affects the stigmatized through mechanisms of segregation, anticipation confirmation, and programmed stereotype initiation, which indirectly presents threats to personal and social identity (Crocker & Major, 1989). Identity threat theory places that situational signals, aggregate portrayals of a person's stigma status, and personal beliefs and intentions shape evaluations of the importance of stigma-pertinent circumstances for well-being (Steele et al., 2002). Identity threat comes about when stigma-significant stressors are appraised as conceivably harmful to a person's social identity and as surpassing a person's coping resources (Crocker & Major, 1989).

Research Questions and Hypothesis

To answer the research questions indicated below, I investigated gender, biological sex, gender identity differences, perceived stigma, use of services, and help-seeking behaviors in college students with PTSD as reported in the 2016-2017, HMS.

RQ1: Are there sex-based differences in perception of stigma in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS?

$H_0$1*:* There are no sex-based differences in perception of stigma in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS.

H_a1*:* There are sex-based differences in perception of stigma in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS.

RQ2: Are there sex-based differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS?

$H_0$2: There are no sex-based differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS.

H_a2: There are sex-based differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS.

RQ3: Are there sex-based differences in help-seeking behaviors in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS?

$H_0$3: There are no sex-based differences in help-seeking behaviors in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS.

H_a3: There are sex-based differences in help-seeking behaviors in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS.

RQ4: Are there gender identity differences in perception of stigma in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

H_04: There are gender identity differences in perception of stigma in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS.

H_a4: There are no gender identity differences in perception of stigma in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS.

RQ5: Are there gender identity differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS?

H_05: There are gender identity differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS.

H_a5: There are no gender identity differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS.

RQ6: Are there gender identity differences in help-seeking behaviors in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS?

$H_0$6: There are gender identity differences in help-seeking behaviors in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS.

H_a6: There are no gender identity differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD as reported in the 2016-2017 HMS.

RQ7: Are there biological sex and gender identity differences in the perception of stigma, help-seeking behaviors, and use of services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS?

$H_0$7: There are no biological sex and gender identity differences in the perception of stigma, help-seeking behaviors, and use of services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS.

H_a7: There are biological sex and gender identity differences in the perception of stigma, help-seeking behaviors, and use of services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS.

Nature of the Study

The nature of this study was to quantitatively examine whether gender, biological sex at birth, and gender identity differences relate to perceived stigma, use of services, and help-seeking behaviors in college students experiencing symptoms of PTSD utilizing secondary data collected through the HMS during academic year 2016-2017. The secondary data in the 2016-2017 HMS was gathered using the Patient Health

Questionnaire (PHQ-9), a tool designed to diagnose, screen, observe, and measure the severity of PTSD symptoms (Granillo, 2012). The questionnaire is commonly used in a professional mental healthcare environment that has demonstrated the effectiveness of measuring treatment outcomes and the screening of PTSD symptoms (Granillo, 2012).

Types and Sources of Data

The study used secondary data collected in the HMS during the academic year 2016-2017, from college students in approximately 26 colleges and universities across the United States, utilizing the PHQ-9 (Appendix A). PHQ-9 is a web-based survey questionnaire of college students conducted yearly in randomly chosen universities and colleges across the country used to conduct the HMS. The study incorporated secondary data collected from college students with PTSD only. The dataset was de-identified, and no particular institution was named. In the present study, respondents formally diagnosed in the customary/traditional sense of diagnosis are.

Definitions

Cognitive behavioral therapy (CBT): CBT is a treatment used in psychotherapy that helps with changing the pattern of how the individual thinks or acts while tending to the challenges brought on by negative thought or conduct (Martin, 2013). CBT can be used to treat issues that people confront in everyday life—for example, issues with sleeping or relationship troubles; alcohol, medication, and drug abuse; or sorrow and tension—to help them oversee and confront fear and vulnerability utilizing their own rational adapting capacities (Martin, 2013). CBT ranges from 4 to 7 months and is contingent upon the kind of mental issues. For example, an individual can go to sessions

once per week for approximately 50 minutes to talk about what issues exist and build up a methodology to work through the issues (Martin, 2013).

Gender: Inconclusive evidence exists that relates to gender differences in help-seeking and healthcare utilization for PTSD. Many studies suggest that among civilians, women are more probable than men to seek treatment after exposure to a traumatic event (Friedman, Foa, & Keane, 2000; Pilgrim, Sommerfield, & Tarrier, 1999). Women veterans of with PTSD likewise had higher utilization of U.S. Department of Veterans' Affairs (VA) healthcare than men (Bertenthal, Cohen, Cohen, Maguen, & Seal, 2012). Military women had higher rates of hospitalization for mental issues before the wars (Guevara, Hoge, & Lesikar, 2002).

Gender identity: According to Ritter and Terndrup (2002), the most modern theories of sexual orientation formation are (a) pre-birth hormone development and genetic inheritance and (b) family and psychosocial factors (e.g., family structure, family dynamics, early sexual experience, gender nonconformity). Wood and Eagly (2015) provide a clear and compelling summary of two distinct research traditions for understanding the nature of sexual identity. One approach conceptualizes gender identity concerning the traits that are associated with being masculine or feminine, features that are most commonly known as agency and communion. The second method conceptualizes gender identity as categorizing oneself as part of either the male or female social group.

Help-seeking behaviors: Help-seeking is related to diminished acknowledgment of mental health issues (Mishra, Lucksted, Gioia, Barnet, & Baquet, 2008), more negative

attitudes toward seeking counseling and therapy services (Conner et al., 2010), and diminished goals to apply for advice (Cooper, Corrigan, & Watson, 2003; Hackler et al., 2010; Vogel et al., 2007).

Mental health: The person recognizes his or her capabilities, manage pressures of life, labor productively and fruitfully, and donate to his or her population (World Health Organization, 2001; 2016; 2014).

Posttraumatic stress disorder: Posttraumatic Stress Disorder (PTSD) is a psychiatric disorder that can happen to people who have encountered or seen a traumatic event, for example, a natural disaster, a serious accident, a terrorist act, war/combat, assault or other personal assault (American Psychiatric Association, 2013).

Stigma: Public stigma refers to stigma held by people, such as healthcare professionals, clergy, or employers, about people with devalued characteristics that result in stereotypes, prejudice, and discrimination (Roa, Molina, Lambert, & Cohn, 2016). Once public stigma is indicated (i.e., personally experienced), it can be internalized by the stigmatized individual, having a profound impact on mental health, medication adherence, health care service utilization, and clinical outcomes (Rao, 2002).

Use of mental health services: Need for services, regardless of whether evaluated or perceived, that appear to be a string of service utilization of any sort e.g., well-being or psychological well-being (Broman, 2012; Hayes et al., 2011; Masuda et al., 2009).

Assumptions

Students voluntarily participated in the 2016-2017 HMS

(HMS, 2016). Participants truthfully answered the questions on the questionnaire. The PHQ-9 is assumed to be the best tool for measuring the variables within the large random sample of college students participating in the 2016-2017, HMS (HMS, 2016). It was assumed that the independent variables gender biological sex and gender identity differences in the research questions predicted attitudes and behaviors towards the dependent variables perception of stigma, help-seeking behaviors, and use of services. A quasi-experimental design and cross-sectional, convenience sampling survey technique was best suitable to examine if there is any significant relationship between independent (IV) and dependent (DV) variables.

Scope and Delimitations

Specifically, I assessed if there were gender and gender identity differences towards attitudes and behaviors regarding the perception of stigma, use of mental health services, and help-seeking behavior scores of individual college participants. The data used in the present study was collected from higher education students enrolled in 26 U.S. colleges and universities. I focused on data from students diagnosed with PTSD. The study used secondary data from a sample of college students diagnosed with PTSD, collected during the 2016-2017 administration of the HMS. The data sets never contain individual identifiers. School names are also de-identified. All students were presently enrolled as undergrad or graduate student in one of the participating colleges or universities. Students under 18-year old were not permitted to participate in the study. Secondary data collected by the Health Mind Study using the PHQ-9. The PHQ-9 is clinically validated with internal reliability. The theoretical framework for this study was

Social learning theory, Gender identity theory, and Identity threat theory. Social learning theory began and continued to change based on ideas derived from Behaviorism and Psychoanalysis (Bandura, 1986). Social learning and gender identity theories incorporate perception, learning, attention, retention, motor reproduction, and motivation (Bandura, 1986). Both approaches are designed to display how education integrates into behavioral change, reactions, and responses that prompt physical enhancement, self-regulation, self-efficacy, and behavioral control (Bandura, 1986). Social learning theory primarily focuses on the individual perceptions, modeling of the behaviors, and emotional response of the reaction of other people (Bandura, 2011). The theory describes how environmental, cognitive, and behavioral factors interrelate to impact human learning and behavior. The widely-acknowledged hypothesis is that individuals can learn through perception, imitation, and modeling of other individual's behaviors and the result of these practices (Abbot, 2007). Trauma-exposed college students, especially those who encounter significant distress due to trauma exposure, are at greater risk of facing adjustment difficulties in college (Banyard & Cantor, 2004), and withdrawing from college altogether (Boyraz et al., 2013; Duncan, 2000). Identity threat theory places that situational signals, aggregate portrayals of one's stigma status, and personal beliefs and intentions shape evaluations of the importance of stigma-pertinent circumstances for well-being (Steele et al., 2002). Identity threat comes about when stigma-significant stressors are appraised as conceivably harmful to one's social identity and as surpassing one's coping resources (Crocker & Major, 1989).

Limitations

A limitation of this study was the self-reported diagnosis of PTSD by potential participants, which is more apparent in people who may have selective memories of the past, are confused about the time an event occurred, are attributing events with positive outcomes to internal forces and negative outcomes to external forces, and are exaggerating events as compared to other actual events (Labaree, 2016). Another limitation was the utilization of the 2016-2017 HMS because it is a self-assessed online study.

Significance of the Study

PTSD among college students ranges from 4% to 17% (Borsari et al., 2008). People who report elevated PTSD symptomatology tend to face additional vulnerabilities such as depression (Shah, Shah, & Links, 2012), interpersonal avoidance, and social help (Galovski & Lyons, 2004), which can result in adverse outcomes for college students transiting to college. This identified attitudes and behaviors of students transitioning to college on the perception of stigma, help-seeking, and use of services (Corrigan, 2004; Cruz et al., 2008; Kuhl et al., 1997; Rickwood & Braithwaite, 1994).

For college students, the use of services may be related to the individual's demographic characteristics (Schnider et al., 2007), trauma disclosure, depression severity, and coping styles. This study provided insight on contemporary social-cultural issues important to college students. These issues included high academic attainment, finance, relationship circumstances, and family support systems (Eisenberg et al., 2007). Future treatment outcome studies should focus on gender biological sex and gender

differences between men and women with PTSD and fill the gap in the literature concerning gender biological sex and gender identity differences as predictors of behaviors and attitudes towards the perception of stigma, help-seeking behaviors, and use of services (Bilican, 2013). The results from this study intended provided information to clinicians and therapists on how to identify contemporary social-cultural issues important to the college students, which include daily activities, educational attainment, and dysfunctional beliefs. Thoughts of feeling inadequate, as a failure, mentally distorted and hopeless associated with misunderstanding, procrastination, self-blame, and inexperience, so future interventions can help accommodate men and women experiencing PTSD with mental health treatment (Rickwood & Braithwaite, 1994).

College students adjust distinctively to a variety of psychological worries, for instance, sensitivity to emotions, powerlessness, perception, and assigning various meanings to psychological experiences (Eisenberg et al., 2007). College students contribute to developing PTSD symptoms and maladaptive adapting capacities, for instance through avoidance adapting while reacting to the stressful events (Alford & Beck, 2008). In college students, use of services may be impacted by demographic characteristics (Elhai & Schnider, 2007), trauma disclosure, depression severity, and the coping styles of college undergraduate subjects who had lost a significant other and were experiencing PTSD side effects. All these characteristics were assessed through various instruments; distress and PTSD seriousness were established as undoubtedly related with issues engaged, dynamics, and avoidant adapting methods.

This study intended to provide insight on the different responses to the causes of mental health treatment issues, transitioning, and adapting to college life. These causes of mental health issues include high academic attainment, finance, relationship circumstances, and family support systems (Eisenberg et al., 2007). Future treatment outcome studies should focus on gender and gender differences between men and women with PTSD and fill the gap in the literature concerning gender and gender identity differences as predictors of behaviors and attitudes towards perception of stigma, help-seeking behaviors, and use of services (Bilican, 2013). The results from this study intended to provide information to clinicians and therapists on how to identify contemporary social cultural issues that are important to the college students, which include daily activities, educational attainment, and dysfunctional beliefs. Beliefs pertaining to feeling inadequate, as a failure, mentally distorted and hopeless associated with misunderstanding, procrastination, self-blame, and inexperience, so future interventions can help accommodate this contemporary population.

Summary

In 2011, over 10 million adults felt that even though they needed treatment for mental health problems, they received insufficient or no mental health care, and reported unmet needs (Alang, 2015). People with PTSD participate in mental health treatment; it enhances the capacity for self-regulated emotions and thoughts (Johnson & Zlotnic, 2006). PTSD among college students ranges from 4% to 17% (Borsari, Campbell, & Read, 2008). The significance of the research problem, the participation in mental health services, could potentially influence the extent to which individual's gender biological

sex and gender identity impact (a) perception of stigma (b) use of mental health services and (c) seeking mental health behaviors. In the current study, the perspectives warrant an examination of the variables of interest as they relate to the importance of maintaining mental health treatment.

Chapter 2 provided an in-depth review of the relevance of gender biological sex and gender identity differences as it relates to the perception of stigma, help-seeking behaviors, and the use of services of individuals experiencing symptoms of PTSD. Additionally, the chapter reported on social theory Bandura (2011) and gender identity theory with regards to treatment (Burke & Stets, 2000; Eagly & Wood, 2009; Pauletti & Perry, 2011; Tobin et al. 2010). Finally, Chapter 2 concluded with an exhaustive review of the literature as it relates to the multidimensional impact of perception of stigma on help-seeking behaviors and use of mental health services of individuals experiencing symptoms of PTSD.

Chapter 2: Literature Review

Exposure to traumatic events can influence numerous areas of individuals' lives, including their physical and psychological well-being (Neylan et al., 2011; Olatunji, Cisler & Tolin, 2007). Such exposure can also impact cognitive functioning and social and family relationships (Qureshi et al., 2000; Galovski & Lyons, 2004; Olatunji et al., 2007). Most trauma studies have focused on veterans and community individuals (e.g., Maguen et al., 2012; Roberts, Gilman, Breslau, Breslau, & Koenen, 2011). However, recent findings suggest that most students enter college with a history of a traumatic event (Frazier et al., 2009; Read, Ouimette, White, Colder, & Farrow, 2011). College students who encounter significant distress due to trauma exposure are at a greater risk of facing adjustment difficulties in college and of withdrawing from college altogether (Banyard & Cantor, 2004; Boyraz, Horne, Owens, & Armstrong, 2013; Duncan, 2000).

In this chapter, I describe the search strategy employed in locating and assessing existing literature related to understanding biological sex at birth and gender identity differences as a predictor of attitudes towards and use of mental health services in individuals experiencing symptoms of PTSD. I also explore literature regarding: the theoretical framework used in this study, biological sex at birth and gender identity differences in the perception of stigma, help-seeking behaviors, the use of mental health services, and the variables of significance. I conclude the chapter with an overview of the various gaps in the literature that are associated with the variables of importance, noting the value of the research for the well-being of individuals that may be experiencing symptoms of PTSD.

Literature Search Strategy

Review of the book *Systematic Reviews in the Social Sciences: A Practical Guide* by Petticrew and Robert (2006) explained that the use of secondary data allows the researcher to find, arrange, and assess prior research results from a broad range of studies that permits analysis of the documents for consistency and inconsistency that extends beyond the original investigations. I obtained the literature compiled for this review through comprehensive online library search methods. Among the scholarly databases examined, those that generated the most applicable results were EBSCOhost, ProQuest, Google Scholar, and American Doctoral Dissertations. The search included peer-reviewed articles published within the last 5 years identified by using the following keywords: *social-economic status, cognitive behavioral therapy, posttraumatic stress disorder, emotions, self-efficacy expectancies,* and *gender*. I accessed a variety of other databases in the search process as well as government organizations such as HMS, in order to obtain international and domestic epidemiologic statistics.

I reviewed current empirical research in the relevant areas from a wide range of publications such as *Journal of Abnormal Psychology, Psychiatric Rehabilitation Journal, Developmental Psychology, Journal of Behavior Therapy and Experimental Psychiatry,* and *Psychological Review*. Additionally, I reviewed the work of key authors identified by the researchers that was relevant to this study, as well as additional works cited by those authors.

Theoretical Framework

The conceptual framework for this study consisted of social learning theory, gender identity theory, and stigma/identity threat theory. Social learning theory evolved from principles derived from behaviorism and psychoanalysis (Bandura, 1986). Social learning and gender identity theories incorporate perception, learning, attention, retention, motor reproduction, and motivation (Bandura, 1986). Both approaches are designed to display how education includes behavioral change, reactions, and responses that prompt physical enhancement, self-regulation, self-efficacy, and behavioral control (Bandura, 1986). Social learning theory primarily focuses on individual perceptions, modeling of behaviors, and emotional response to the reactions of other people (Bandura, 2011). The theory describes how environmental, cognitive, and behavioral factors interrelate to impact human learning and behavior. The widely-acknowledged hypothesis of social learning theory is that individuals can learn through perception, imitation, modeling of other persons' behaviors, and the results of those behaviors (Abbot, 2007).

Abbot (2007) explained social learning as a cognitive interpretation of human learning, knowledge, and belief in reinforcement or consequences that may have critical effects on individual behaviors. Social learning theory is defined as environmental, cognitive, and behavioral components that interrelate affecting human learning and behavior (Bandura, 2011). It posits that individuals learn through perception, impersonation, and demonstration by watching other peoples' actions and the reactions to those behaviors (Abbot, 2007).

Stigma is an intense phenomenon with far-ranging consequences for its targets (Crocker et al., 1998; Jones et al., 1984; Link & Phelan 2001). Stigma has been linked to poor mental health, physical ailments, scholastic underachievement, infant mortality, low societal position, poverty, and diminished access to housing, education, and occupations (Allison, 1998; Braddock & McPartland, 1987; Clark et al. 1999; Yinger, 1994). Analysts have for some time been interested with the causes of stereotyping, prejudice, and segregation, and the mental effects of these processes.

Stigma specifically affects the stigmatized through mechanisms of segregation and indirectly by means of threats to personal and social identity (Crocker & Major, 1989). Identity threat comes about when stigma stressors are appraised as potentially harmful to a person's social identity, exceeding the individual's coping resources (Crocker & Major, 1989). Identity threat creates involuntary anxiety reactions and motivates attempts to mitigate the perceived threat through adaptive strategies (Crocker et al., 1998). Stress reactions and adaptive responses affect self-confidence, scholastic accomplishment, and well-being (Compas et al., 1999).

In this study, I intended to concentrate on contemporary social and cultural issues relevant to college students, including daily activities, educational achievement, and dysfunctional beliefs. Dysfunctional beliefs demonstrate feelings of inadequacy, failure, and hopelessness associated with misunderstanding, procrastination, self-blame, and inexperience. Dysfunctional beliefs demonstrate that college students have a different response to causes of mental problems when transitioning and adapting to college life. These emotional stressors include academic achievement, finances, relationship

circumstances, and family support systems (Eisenberg et al., 2007). Cognitively, college students adjust distinctively to a variety of psychological conditions such as sensitivity to emotions and feelings of powerlessness (Eisenberg et al., 2007).

Gender identity theory explores how individuals perceive themselves to be masculine or feminine based on society's meanings for those terms (Perry & Pauletti 2011; Stets & Burke 2000; Tobin et al. 2010; Wood & Eagly 2009). This idea connects the sociological theory known as *doing gender*. Doing gender alludes to the way individuals play out normal behavior and social interactions with gendered symbolic behavior and signifiers (West & Zimmerman, 1987). As indicated by this theory, gender is a mastered identity; gender cuts across conditions and is omnirelevant because all activities can be interpreted as representing it. In that capacity, individuals can be considered responsible for gender appropriateness based on behavior or language at work, at home, or in the street (West & Fenstermaker, 1995). Doing gender concentrates on interpersonal interactions and typical behaviors in the social circle, while gender identity theory starts at an intrapersonal level as a self-assessment of masculinity or femininity. The rationale is that gender identity theory can frame the reasons for the gendered behavior people show in the social circle through a comparison of self-characteristics with those from a gender classification (Tobin et al., 2010; West & Zimmerman, 1987).

Literature Review Related to Key Variables

The Multidimensional Impact of Psychological Well-Being and Positive Mental Health

Recent research on positive feelings is more prevalent than research on negative feelings or the relationship of feelings to the environment or to a higher power (Kammann & Flett, 1983; Ellison, 1983; Ellison & Smith, 1991; Emmons, 2003); however, all of these dimensions' impact overall cognitive health and emotional wellness. Emotional wellness is calculated utilizing the General Psychological Well-Being Scale, along with the Mental Health Continuum Short-Form (Khumalo, Temane, & Wissing, 2010; Keyes, 2002; Keyes et al., 2008). According to Alang (2015), positive mental well-being may be associated with inner-city livelihood, occupation, marital status, and academic attainment. For example, those who live in a rural area, who are unemployed, who are unwed, and those who have attained a low level of education are more likely not to have positive mental health (Alang, 2015).

The well-documented attainment of psychological well-being has numerous advantages in all dimensions of individual functioning (Johnson & Zlotnic, 2006). Keyes (2005a) established that successful individuals operate at higher mental health well-being levels than unsuccessful individuals with regards to business-related responsibilities and achieved higher altitudes of psychosocial performance. Thriving integrates with a low level of perceived defenselessness, a high operational objective, more grounded self-detailed adaptability, and a level of closeness (Keyes 2005a). Overall, emotional well-being and mental wellness play a defensive part against unending physical ailments

(Keyes, 2005b; Ryff & Singer, 1998). Satisfactory mental wellness in families permits individuals to appreciate above-standard well-being, great personal relationships that add to families, advancements in society, and personal satisfaction (Sokoya et al., 2005).

Posttraumatic Stress Disorder

PTSD among college students ranges from 4% to 17% (Borsari, Read, & Campbell, 2008), suggesting that not all individuals who encounter potentially traumatic events (PTEs) develop PTSD. However, people who report elevated PTSD symptomatology tend to face additional vulnerabilities such as depression (Shah, Shah, & Links, 2012), interpersonal avoidance, and social help (Galovski & Lyons, 2004), which can result in adverse outcomes for college students transiting to college. The literature identifies that the help-seeking attitudes and behaviors of students transiting to college, negatively affect seeking the help of professionals (Galovski & Lyons, 2004).

The individual's perception of stigma from friends and family, self-sufficiency, and lack of knowledge and awareness may impact seeking mental treatment. The person emotional competence may also impact the use of services (Cruz, Pincus, Harman, Reynolds, & Post, 2008; Kuhl, Jarkon-Horlic, & Morrissey, 1997; Rickwood & Braithwaite, 1994; Rickwood, Deane, Wilsin, & Ciarrochi, 2005).

For college students, the use of services may impact demographic characteristics (Schnider & Elhai, 2007). Trauma disclosure, depression severity, and the coping styles of undergraduate college subjects who had lost a significant other and were experiencing PTSD side effects were assessed through various instruments (Schnider & Elhai, 2007). Distress and PTSD seriousness were established to be undoubtedly related to issue

engaged, dynamic, and avoidant adapting methods (Schnider & Elhai, 2007). A study conducted by Shnider and Elhai (2007) observed 123 college students with an age span of 18-45 years. Depression and PTSD reveal that severity positively corresponded with adapting style and that avoidant adapting was the most grounded indicator of PTSD (Schnider & Elhai, 2007). Furthermore, avoidant emotive coping strategies were revealed to be effective in treating trauma victims of PTSD (Schnider & Elhai, 2007). Identity and trauma were also important, with interpersonal trauma (being terrorized by another person) being a more traumatic reliable indicator of an expected shock than non-interpersonal trauma (such as an animal attack; Schnider & Elhai, 2007).

Gender Identity

Understanding gender differences in indicators of and barriers to treatment are fundamental to improving engagement in mental health (Gallegos et al., 2015). Suggested by Ritter and Terndrup (2002), the most modern theories of biological sex formation are (a) pre-birth hormone development and genetic inheritance, and (b) family and psychosocial factors (e.g., family structure, family dynamics, early sexual experience, gender nonconformity). There are a couple of meanings that explain the nature of sexual identity. The first definition according to Wood and Eagly (2015) suggests gender identity as traits associated with perceptions of being masculine or feminine. The second definition conceptualizes gender identity as identifying oneself socially as either male or female. Furthermore, Wood and Eagly (2015) explained that gender practitioners in psychology often work within one tradition, or another, and empirical evidence suggests that both gender identities predict educational outcomes.

Gender

Gender and use of treatment relate to healthy and supportive grounded effects more so on females than males (Ahern et al., 2004; Andrews et al., 2003; Olff, 2012). Females may receive a greater amount of auxiliary advantages related to treatment. These benefits include how to adapt to negative emotions, support from friends and family, and superior personal satisfaction (Ahern et al., 2004). These are important regarding maintaining emotional wellness, as emotional wellness permits better adaptation to troublesome life circumstances outside and after treatment (Andrews et al., 2003; Olff, 2012). The abilities learned amid treatment might likewise push females to keep up their changes in the long run (Felmingham & Bryant, 2012).

The reason for female's somewhat higher treatment reaction is not clear. In response, Lange et al. (2001), and Sijbrandij et al. (2007) asserted that males might have a higher tendency to drop out of a treatment program than females, which may account for female predominance in treatment statistics. Sijbrandij et al. (2007) also suggested that if men encounter a change regarding treatment, they are more likely to withdraw from treatment earlier than females, thereby explaining some of the variances in treatment data. It is conceivable that differences between individual traumas clarify the distinctions (Lange et al., 2001). For instance, males are more frequently present to battle injury, physical assaults, or genuine mishaps (Breslau, 2002; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995), while females more frequently present adolescent trauma and rape (Tolin & Foa, 2006). This difference can lead to distinct changes in treatment adequacy (Breslau, 2002; Kessler et al., 1995; Tolin & Foa, 2006). Bradley et al. (2005)

suggest that physical or sexual attacks were related to the most astounding impact sizes, while battle trauma registered as the most minimal.

On the contrary, Desrochers et al. (2016) suggest that gender use of treatment may prevent females from initiating the care they need. Additionally, there are inconsistencies in findings due to the differences in trauma response between individuals when considering the potential influence of gender (Desrochers et al., 2016). According to Desrochers et al. (2016) study, before starting a cognitive-behavioral therapy treatment, 66 participants verbally recounted their traumatic event during a follow-up meeting after treatment, and 48 members provided a trauma narrative at the end. Linear regression examinations revealed that none of the pretreatment characteristics predicted treatment adequacy; furthermore, the length of the trauma narrative was the main pretreatment characteristic that correlated with pretreatment PTSD symptoms (Desrochers et al., 2016). The authors propose that more severe symptoms relate to shorter narratives, leading to a significant gender difference in narrative length, as male stories were shorter than females (Desrochers et al., 2016). In this field of research on gender, additional research could allow for enhanced treatments to target gender-specific needs, subsequently leading to more individualized care for PTSD patients (Desrochers et al., 2016).

Furthermore, understanding gender differences in indicators of and barriers to treatment is fundamental to improving engagement and mental health results (Gallegos et al., 2015). A study conducted by Gallegos et al. (2015) examined gender differences in treatment use after a brief, cognitive-behavioral therapy (CBT) intervention among male

and female veterans. Participants were 35 females and 238 male veterans who screened positive for PTSD and had never started PTSD treatment. Participants were assigned randomly to either the intervention or control conditions. Intervention participants received the phone-based CBT intervention (Gallegos et al., 2015). Participants were asked about treatment use, perceptions about PTSD treatment, and symptoms at one, three, and six months, subsequent to the baseline phone assessment (Gallegos et al., 2015). The PTSD Checklist-Military Version was used to assess PTSD, and the Patient's Health Questionnaire was used to evaluate symptoms of depression. Female veterans who received an intervention were significantly more prone to have attended treatment over the 6-month follow-up period than male veterans who received an intervention ($\chi^2 = 7.91$; df = 3; odds ratio, 3.93; $p = .04$; Gallegos et al., 2015). The CBT intervention might be a critical mechanism to connect female veterans in treatment, and further research is needed to understand how to engage male veterans with use of services for treatment of PTSD (Gallegos et al., 2015).

Considering that males are more averse to revealing intimate encounters than females, it is conceivable that men may have had relatively fewer chances to pick up disconfirmation of disastrous perceptions taken after trauma (Dindia & Allen, 1992). There is significant research regarding the critical aspect of devastating examinations in the maintenance of PTSD (Ehlers & Clark, 2000). McClean and Anderson (2009) asserted that men often hold convictions that communicating feelings, talking about the trauma, and looking for support are indications of “shortcoming.” Empirical findings propose gender and differences in the vulnerability to traumatic events (Bilican, 2013).

For example, trauma-exposed women (i.e., violent crime victims) were more likely to report negative responses from family and friends in contrast to men (Andrews, Brewin, & Rose, 2003), suggesting that trauma exposure and PTSD may have more negative consequences on social relationships for women than for men.

Another research study using the HMS impact on gender conducted by Pedrelli, Borsari, Lipson, Heinze, and Eisenberg (2016) examined the relationship between major depressive disorder (MDD) and substantial drinking (HED). In this population, the impact of gender on this relationship, and whether comorbid MDD and significant alcohol use are related to higher rates of emotional wellness treatment engagement are determined. The study consisted of 6,561 (65.3% female) undergraduate students who answered an online survey on depression, alcohol use, and treatment engagement in the previous year. Hierarchical linear regressions examined the relationship between MDD and drinking (HED and peak blood alcohol concentration [pBAC]), and whether gender directed these associations (Pedrelli et al., 2016). Students with MDD reported more continuous HED and higher pBAC than did students without MDD; this is particularly the case for female students. Rates of treatment engagement were higher among women than men, among students with MDD than students without MDD, and among female students with HED than females without HED (Pedrelli et al., 2016). The presence of a relationship between MDD and heavy alcohol use proposes the need for regular screenings of both conditions; low rates of treatment engagement in college students with MDD and heavy drinking calls for the advancement of strategies to engage this high-risk group in treatment (Pedrelli et al., 2016).

Use of Services

Between 33% and 50% of young adult's report experiencing mental health-related challenges (Sternlieb & Munan, 1972; Walker et al., 1982). Notwithstanding having the need, individuals often neglect to get mental health services (Young, Klap, Sherbourne, & Wells, 2001; Wang et al., 2005). Over 65% of young adults with difficult mental issues fail to seek help (Dubow et al., 1990). Between 36–68% of people with severe mental problems seek help (Bijl et al., 2003). Introduction for emotional well-being treatment is under 50% including for long-term issues (Kessler et al., 1994). About 77% of individual's that receive mental health treatment have a diagnosis; the people who encounter mild psychological troubles that do not have a diagnosis seek help even less (Andrews et al., 2001).

College students experience numerous interpersonal traumas that are related to high amounts of stress and have more negative use of treatment outcomes than casualties of non-interpersonal trauma (Vrana & Lauterbach, 1994). According to Green et al. (2000) suggested that many shocks result in higher morbidity and that the seriousness of the trauma is worth consideration. Interpersonal traumas are more damaging than non-interpersonal trauma (Green et al, 2000). Furthermore, Green et al. (2000) studied 2,507 college females using the Stressful Life Events Screening Questionnaire and the Trauma Symptom Inventory as instruments, concentrating on different forms of trauma and how often these traumatic events occurred. Per Green et al. (2000), females who experienced three to four traumatic occurrences had a quadrupled danger of developing a mental disorder. In conjunction with the Cognitive Theory of Stress and Coping (Lazarus &

Folkman, 1984), their surroundings surpassed their capability to adapt. Gender had a contribution while ethnicity did not (Green et al., 2000). Dissimilarity in therapy response relates to additional gender-related issues involving the demonstration of emotions, coping plans, interpersonal and social support, civilian versus military rank, and how chronic and acute the PTSD symptoms and comorbid mental health situations are (Cason et al., 2002).

College student demographic characteristics, trauma disclosure, depression severity, and the coping styles of undergraduate college subjects who had lost a significant other and were experiencing PTSD symptoms, were assessed through various instruments; distress and PTSD seriousness were established to be undoubtedly related to trauma experienced and avoidant adapting methods. Research conducted by Schnider and Elhai (2007) observed 123 college students with an age span of 18-45 years. Their study reveals that depression and PTSD severity positively corresponded with adapting style, and that avoidant adapting was the most grounded indicator of PTSD (Schnider & Elhai, 2007). Furthermore, avoidant emotive coping strategies were revealed to be effective in treating trauma victims of PTSD (Schnider & Elhai, 2007). Identity and trauma were also important, with interpersonal trauma (terrorized by another person) being more traumatic (Schnider & Elhai, 2007), and a reliable indicator of an expected shock than non-interpersonal trauma, for example, an animal attack (Schnider & Elhai, 2007).

In the veteran population, use of mental health treatment for PTSD is encouraged in various clinical environments, however, a small number of PTSD patients receive psychotherapeutics, inferring that it is significantly underutilized in a few common

requests (Harpaz-Rotem, Libby, & Rosenheck, 2012; Olfson & Marcus, 2010). PTSD is a standout amongst the most well-known issues in veterans, and accompanies high budgetary costs (Congressional Budget Office, 2012; Kulka et al., 1990; Richardson, Frueh, & Acierno, 2010). The Department of Veterans Affairs (VA) is the biggest combined medical services framework in the United States specializing in a concentration regarding outpatient treatment in PTSD (Hundt, Mott, Cully, Beason-Smith, Grady, & Teng, 2014). Just a little over 30% of veterans with PTSD acquire any treatment in the year after the first finding, and even less get a satisfactory measurement of treatment (Cully et al., 2008; Mott et al., 2014). The low usage of PTSD treatment corresponds with suicide chance, physical impairment, and a reduction in personal satisfaction, and work and relationship issues (Kessler, 2000; Panagioti, Gooding, & Tarrier, 2012; Sareen et al., 2007; Zatzick et al., 1997; Zatzick et al., 2008). Those veterans were compared to individuals who dwell in rural neighborhoods, and they had a negative point of view on getting treatment (Cully, Jameson, Phillips, Kunik, & Fortney, 2010; Harpaz-Rotem, & Rosenheck, 2011; Hoerster et al., 2012; Owens, Herrera, & Whitesell, 2009). A blend of actualities may prompt this underutilization of treatment administrations by veterans, including significant troubles, stigma, and help-seeking behaviors related to not feeling emotionally ready to take an interest in treatment services (Hoge et al., 2004; Stecker et al., 2013).

The limited use of PTSD mental health treatment was examined, while the opposite is true for high usage of PTSD treatment (Hundt et al., 2014). High PTSD treatment usage could be complex because in governed care, or a VA environment where

resources are restricted, a moderate number of clients utilizing staggeringly generous measures of treatment may convert into a neglected unmet need for different individuals, or bolster retention (Maclean & Richman, 2001). Neglected necessities may prompt inconsistencies in care of which access treatment administrations is slender (Maclean & Richman, 2001). Currently, two reviews have inspected the high use of treatment (Hundt et al., 2014), and neither particularly examines above average participation in the treatment of PTSD treatment; these reviews recommend a relationship between the seriousness of symptoms and the length of time to treat. Research conducted by Bender et al. (2001) explored the use of treatments including groups, individual, and family in clients with identity issues contrasted with depressed clients; clients with identity issues took part in considerably more treatment than customers who were depressed, spending around 50 months in individual treatment throughout their lives. These patients also had higher mental disorder difficulties than patients who used less mental health care; however, these patients had less mental disorder pain than high users of emergency psychiatric care and physical care (Pezzimenti et al., 2006). No investigation mainly examined the high usage of treatment in PTSD clients (Hundt et al., 2014).

Stigma

Stigma is fearing a negative evaluation upon receiving mental health care (Deane & Chamberlan, 1994). The stigma against psychological issues and the fear of being considered insane hinders obtaining help (Kushner & Sher, 1989; Sirey et al., 2001; Jackson, Judd, Komiti, & Wrigley, 2005). Around 90% of individuals surveyed report a fear of being called insane that keeps them from utilizing psychological services (Barbaro

& Nelson, 1985). Society tends to have a negative conceptualization of individuals who experience mental troubles, which adds to social detachment, misery, and difficulties in social life and employment (Crisp et al., 2000). Outsiders see individuals participating in treatment for psychological problems as unstable, compared to persons who are not in treatment (Ben-Porath, 2002). Therefore, stigma connected to seeking professional psychological help is a significant barrier to entering treatment (Dovidio & Sibicky, 1986).

The stigma related to mental illness may be a critical factor in decreasing help-seeking. Stigma may be defined as a process involving labeling, division, stereotype awareness and endorsement, prejudice and discrimination in a context in which social, economic or political power practices are to the detriment of members of a social group (Link & Phelan, 2001). There are several different types of stigma described by Clement et al. (2012) such as anticipated stigma; anticipation of personally being perceived or treated unjustifiably and encountered stigma; the personal experience of being seen or treated unreasonably.

Internalized stigma, holding stigmatizing views around oneself, and perceived stigma participants view the extent to which individuals all have stigmatizing attitudes/behavior towards people with mental illness (Clement et al., 2012). Stigma endorsement is the participant's own stigmatizing attitudes/behavior toward other people with mental problems related to seeking or accepting treatment for mental health issues (Clement et al., 2012).

There are a few studies conducted on health-related stigma, and help-seeking (Angermeyer & Schomerus, 2008; Corrigan, 2004; Corrigan & Rüsch, 2002; Gary, 2005; Kushner & Sher, 1991; Thornicroft, 2008). Each reported that there was some evidence that stigma obstructs help-seeking, potential mechanisms are proposed, and these

researchers presume that the field is currently ineffectively understood (Clement et al., 2014). It would also be used to examine how different types of stigma may relate to other help-seeking hindrances to wanting to manage problems oneself, and the little-perceived need. Further research is also required in establishing what constitutes a negligibly stigmatizing service and on the effectiveness of the strategies individuals use to overcome treatment stigma and access services (Clement et al., 2014).

Research on stigma and the use of services among veterans suggests that veterans use under 25% of the courses required for a completion of mental health treatment using an evidence-based curriculum for PTSD (Seal et al., 2010; Tuerk et al., 2011). These low-utilizing individuals were younger that high-utilizing clients, consistent with earlier research demonstrating that recently returning veterans take less of an interest in, and finish fewer treatment sessions (Brooks et al., 2012; Lu et al., 2011). The impact of therapy is searching, and stigma on veterans' occupation may astonish hindrances to mental health use among more energetic veterans (Hoge et al., 2004; Stecker et. al., 2010). According to Hundt et al. (2014) the seriousness of mental illness is related to seeking and participating in mental health treatment, suggesting that several veterans might not be involved in therapy regardless of mental health necessities. Chronic PTSD can be problematic with regards to treatment as these veterans frequently have trouble

discussing traumatic events, trusting unidentified individuals, and being in packed group areas such as VA centers (Hundt et al., 2014). Veterans experiencing difficulties with treatment in groups, and with advisors could profit by choosing outreach or unique treatment methodologies; this could urge them to participate in treatment more, and altogether minimize the grimness that associates with PTSD (Hundt et al., 2014).

Seeking-Help Behaviors

Referring to family and friends can interfere with getting professional psychological help (Bilican, 2013). Disturbed emotional youth frequently seek help from friends (Offer et al., 1991). Help-seeking is used to signify all phases of the process from initiation to engagement with care (Kovandžić et al., 2011). About 89% of youth in need refer to friends, 81% refer to family, and 32% refer to ministry (Bilican, 2013). On the contrary, fewer than 10% of young people use treatment through mental health services (Dubow, et al., 1990). Young people often choose not to seek professional mental health treatment (Benson, 1990). For example, they choose talking to young people 36%, parents 24%, a close friend similar in age, or a family member (Benson, 1990). About 86% of young people who seek help refer to family and friends, though just over 10% seek help from mental health professionals (Rickwood & Braithwaite, 1994).

The assumption that young adults are self-sufficient proves to be a barrier for seeking help from mental health professionals (Rickwood et al., 2005). Between 76–86% of young people experiencing mental issues involving dating, peer pressure, symptoms of depression, tiredness, issues with natural guardian’s, suicidal ideation, feeling obese, controlled substance abuse, and report dealing with problems alone (Dubow et al., 1990).

Young people are very inexperienced in assessing mental health resources (Bilican, 2013). When young people are surveyed regarding mental health resources, intervention hotlines, mental health professionals, Planned Parenthood, alcohol and drug treatment center, and the departments of health and welfare that exist in their community, more than half responded no or not sure (Dubowet al., 1990). Minimum emotional competency characterizes as lacking the ability that recognizes, describes, and comprehends emotions, and management in an efficient and non-defensive way (Bilican, 2013). Young adults who are low on emotional competence are less likely to seek help, then those who are higher in emotional power (Ciarrochi et al., 2003; Rickwood, et al., 2005).

Beyond the widely-documented effects of demographic variables as barriers to seeking help in the college population, additional evidence reveals the positive impact of seeking help behaviors on higher educational levels and higher family wages (Tijhuiset al., 1990). Research suggests that some demographic variables work as barriers to seeking help for issues related to mental health (Bilican, 2013); for example, being male and older, low socioeconomic status (SES), and low educational status seem to hurt psychological help-seeking. Females are more inclined to seek psychological help than males and are more likely to process emotions (Ciarrochi et al., 2003; Fisher & Farina, 1995; Kuhl et al., 1997). High-SES students express a desire for help with mental health disorders and sex-related issues, while low-SES students want help with a broad range of physical health concerns (Walker et al., 1982). Individuals who seek more psychological help are younger, have higher education levels, and have a higher family wage (Tijhuis et

al., 1990). When substance abuse is the behavioral issue, the higher the SES, the younger adults pick parents over school experts as preferred sources of support (Benson, 1990).

Few studies have analyzed psychological help-seeking attitudes and behaviors and the barriers to seeking help from mental professional (Bilican, 2013). The literature demonstrates that individuals are positive towards group psychotherapy at the start of treatment (Bilican, 2013). People blame doctors for withholding data about treatment services, deny their troubles, and take part in passive help-seeking behaviors (Battegay & Yilmaz, 1997).

While there have been essential recent advances in the improvement of effective universal prevention and intervention programs, it is not yet clear how to draw large quantities of students to these projects (Lipson et al., 2016). Research conducted by Lipson et al. (2016) using the HMS as a validated, reliable screening tool that report findings from a two-stage pilot investigation. Approximately one in three students have significant symptoms of eating disorders or heightened weight concerns, most of who (86.5%) have not participated in treatment (Lipson et al., 2016). According to Lipson et al. (2016) in the second stage, they referred students to online prevention and selective/suggested intervention programs based on symptom classification (N=1916) and found that program enrollment is highest for students in the suggested intervention (18.1%) and lowest for students in the general prevention (4.1%). Traditionally emphasized barriers, for example, stigma, misinformation, and monetary restrictions do not appear to be the most vital components preventing treatment seeking (Lipson et al., 2016); thus, students perhaps report not seeking help for reasons such as lack of time,

lack of perceived need, and a desire to deal with the issue “all alone” (Lipson et al., 2016). Findings offer knowledge into the treatment-seeking habits and states of mind of college students, including those barriers that may be overcome by providing online programs, and those that continue despite increased access to and comfort of significant resources (Lipson et al., 2016).

Summary and Conclusions

Chapter 2 provided an in-depth review of the relevance of gender biological sex at birth and gender identity differences as it related to the perception of stigma in help-seeking behaviors and use of mental health services of individuals experiencing symptoms of PTSD. Perceived stigma is fearing a negative evaluation upon receiving mental health care (Deane & Chamberlan, 1994). The stigma against psychological issues and the fear of being considered insane hinders obtaining help (Kushner & Sher, 1989; Sirey et al., 2001; Jackson, Judd, Komiti, & Wrigley, 2005). Around 90% of individuals surveyed report a fear of being called insane that keeps them from utilizing psychological services (Barbaro & Nelson, 1985). This study intended to consider the importance of clarifying internal attributions such as self-blame, reprimanding oneself for mistreatment, and admission and its consequences (Trickey et al., 2012). Additionally, the researchers discussed social theory (Bandura, 2011), gender identity theory with regards to treatment (Perry & Pauletti, 2011; Stets & Burke, 2000; Tobin et al., 2010; Wood & Eagly, 2009), and the individual’s coping abilities and systems of support (Trickey et al., 2012). Internal and external cognitive attributions elucidate how the variables of interest

manifest in the behaviors of individuals experiencing symptoms of PTSD; various other theories support the stated relevance.

Finally, Chapter 2 concluded with an exhaustive review of the literature as it related to the multidimensional impact of the perception of stigma in help-seeking behaviors and the use of services on individuals experiencing symptoms of PTSD.

Chapter 3: Research Method

The purpose of this study was to explore gender, biological sex at birth, and gender identity differences as predictors of attitudes and behaviors towards the perceived perception of stigma in help-seeking behaviors and use of mental health services (Bilican, 2013). Perceived stigma is fearing a negative evaluation upon receiving mental health care (Deane & Chamberlan, 1994). The stigma against psychological issues and the fear of being considered insane hinders obtaining help (Kushner & Sher, 1989; Sirey et al., 2001; Jackson et al., 2005). Around 90% of individuals surveyed report a fear of being called insane that keeps them from utilizing psychological services (Barbaro & Nelson, 1985). Secondary data from the HMS using the PHQ-9 (see Appendix A) was used to determine how biological sex at birth and gender identity differences influence perceived stigma in use of mental health services and help-seeking behaviors in a sample of college students located in the United States. I used data from the 2016-2017 administration of the HMS in the study.

In this chapter, I describe the research design and rationale for the study. I outline the population and sampling procedures that were included in this study in this section. I detail the procedures for recruitment, participation, and data collection in the study as well as the procedures for gaining access to the secondary data. I detail the data analysis methods to address the research questions in this chapter. Finally, I describe the threats to validity and ethical considerations for participants and data.

Research Design and Rationale

I employed a quantitative convenience sampling survey technique in this study. Researchers use convenience sampling to locate the people who happen to be easy to access as participants in a study (Trochim, 2009). Scholars use convenience sampling when the procedures the researchers are testing are widespread, and they can be generalized beyond a narrow sample (Trochim, 2009). The convenience sampling method may be effective when conducting data collection to distinguish and address weaknesses related to questionnaire design (Saunders et al., 2012). The advantages of convenience sampling include its simplicity, its helpfulness for pilot studies and hypothesis generation, and the low cost of implementation (Saunders et al., 2012). In this study, I used secondary data from a sample of college students who self-reported with PTSD during the 2016-2017 administration of the HMS. The research questions guiding this study were the following:

RQ1: Are there sex-based differences in perception of stigma in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

$H_0$1: There are no sex-based differences in perception of stigma in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS.

H_a1: There are sex-based differences in perception of stigma in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS.

RQ2: Are there sex-based differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

$H_0$2: There are no sex-based differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS.

H_a2: There are sex-based differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS.

RQ3: Are there sex-based differences in help-seeking behaviors in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

$H_0$3: There are no sex-based differences in help-seeking behaviors in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS.

H_a3: There are sex-based differences in help-seeking behaviors in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS.

RQ4: Are there gender identity differences in perception of stigma in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

$H_0$4: There are gender identity differences in perception of stigma in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS.

H_a4: There are no gender identity differences in perception of stigma in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS.

RQ5: Are there gender identity differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

$H_0$5: There are gender identity differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS.

H_a5: There are no gender identity differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS.

RQ6: Are there gender identity differences in help-seeking behaviors in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

$H_0$6: There are gender identity differences in help-seeking behaviors in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS.

H_a6: There are no gender identity differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS.

RQ7: Are there biological sex and gender identity differences in the perception of stigma, help-seeking behaviors, and use of services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

$H_0$7: There are no biological sex and gender identity differences in the perception of stigma, help-seeking behaviors, and use of services in a sample

of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS.

H_a7: There are biological sex and gender identity differences in the perception of stigma, help-seeking behaviors, and use of services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS.

For RQ1 and RQ4, the dependent variable was the perception of stigma. For RQ2 and RQ5, the dependent variable was the use of mental health services. For RQ3 and RQ6, the dependent variable was help-seeking behaviors. The independent variable for RQ1, RQ2, RQ3, and RQ7 was biological sex at birth. For RQ4, RQ5, RQ6, and RQ7, the independent variable was gender identity.

This study was quantitative. Quantitative methods are appropriate to assess relationships among variables and differences among groups (Howell, 2013). In the study, I used demographic independent variables (IV) and secondary numerical data collected from college students diagnosed with PTSD. I assessed differences in students' quantified responses regarding stigma in use of mental health treatment services and help-seeking behaviors based upon biological sex at birth and gender identity differences. Statistical analyses were conducted to test the hypotheses guiding this study related to differences in the dependent variables due to the independent variables of biological sex at birth and gender identity differences. A quantitative convenience sampling survey technique was employed. I conducted an analysis on the data collected during the 2016-2017 HMS using the PHQ-9. The data was gathered from students of higher education

enrolled in 26 colleges and universities in the United States. I isolated and analyzed data from students diagnosed with PTSD.

According to 2016-2017, HMS *School Participation Guide*:

> HMS is administered online. To identify the issues for examination in HMS, the study's primary investigators (at University of Michigan) consulted with a specialist in the field of college student mental health and reviewed the existing literature on mental health disorders among college students. In developing the HMS survey, the chief specialist used previously-validated instruments whenever possible. Based on inserted skip logic, a portion of the measures is evaluated for students with specific responses to survey items. The HMS survey takes approximately 20-25 minutes for most students to finish. Students may skip any questions that make them uncomfortable, or that they just do not wish to answer. The registrar's office (or proportionate campus unit) performed a random sampling procedure to obtain the desired number of students for survey recruitment. For the randomly-selected sample of students, the registrar's office provided a file of student data. For all students in the random sample the following data were collected: assessment of nonresponse bias and investigation, first name and last name, e-mail address, date of birth, sex, race/ethnicity, citizenship, student status, school/program year, grade point average (GPA), and field of study. The data acquired were obtained before the recruitment of individual students. The chief investigators collected the administrative data listed above for all students enrolled in the study under the rules of the Family

> Education Rights and Privacy Act (FERPA). These surveys must help create, administer, or validate predictive tests; administer student aid programs; or enhance instruction. HMS is consistent with these specifications in several ways. The HMS is a validated mental health screening test to perceive how well the PHQ-9 predict academic results. The purpose of HMS is to understand how the learning environment (i.e., academic instruction) is enhanced through addressing mental health (p. 1-10).

At each participating campus, a random sample is chosen from the full student population. At most campuses, this initial sample is 4,000 students; it is smaller at campuses with fewer than 4,000 students. In 2007 and 2009, students were invited using postal mail (with a $2 incentive) and received four e-mail update reminders connecting to the survey. Since 2010, recruitment has been through e-mail only. All students were informed that they are entering a monetary sweepstake drawing, regardless of their participation. The survey was administered using Illumes web-based survey software.

Methodology

Population

I used approximately 5,000 participants within the de-identified secondary data set of higher education college students from 26 universities and colleges across the United States. The HMS collected this data in 2016-2017 using the PHQ-9 (see Appendix A). The PHQ-9 is a web-based survey of randomly-chosen college students conducted yearly from universities and colleges across the country. All students were enrolled at the undergraduate or graduate level in one of the participating 26 colleges or universities.

Students under the age of 18 were not permitted to participate in the study. I incorporated secondary data collected from students of higher education college students with PTSD using transparent sampling procedures according to the 2016-2017 HMS data set. The students who self-identified as being diagnosed with PTSD was classified as a separate group and the target population

The target population consisted of approximately 5,000 participants. To account for possible dropouts, 36% more were added as a buffer and for other unplanned adjustments, which amounted to (*N*=6,800); this addition contributed to the probability of determining any relationship between variables.

Sampling and Sampling Procedures

Students from each participating institution volunteered to participate in the original study (HMS, 2016). Mail and electronic invitations were distributed to students, with an assurance of privacy regarding their mental health information. The participants received a cash incentive for participation in the study. E-mail reminders were sent to students who deferred in responding and to the nonresponses (HMS, 2016). To guarantee consistency in the sampling and recruitment measures, administrators at the University of Michigan School of Public Health spearheaded all sampling procedures.

In this study, I isolated the responses of participants who self-reported as having PTSD diagnoses. I excluded any individuals with non-self-reported PTSD diagnoses, or who indicated that they were not diagnosed with PTSD. The target sample size was calculated using G*Power .80. A quantitative convenience sampling survey technique with an alpha of 0.05, a medium effect size, and a power of 0.80, suggests that, the

minimum sample size for the analysis is 4,000 participants (Faul et al., 2013). The alpha of 0.05 was selected because it represents a 5% chance that a Type I error occurs, and that there is no effect in the population (Field, 2013). A power of 0.80 was selected because it reflects a 20% chance that no effect is observed when there are statistically-significant results (Field, 2013). Finally, a medium effect size was used as a parameter for the analysis because it represents a medium magnitude of difference in the variable (Field, 2013).

Procedures for Recruitment, Participation, and Data Collection

According to 2016-2017, HMS *School Participation Overview Guide*:

> Students voluntarily accessed the 2016-2017 Healthy Minds Survey using the unique survey link provided in the recruitment and reminder emails. The link takes students to the web survey, where they were presented with the 2016-2017 HMS, and the HMS consent form. Students must give their consent to advance to the first question in the web survey. Recruitment and updated reminder emails about the 2016-2017 HMS were distributed through Emma, a web-based advertising, and communications company. Students created an institutional email address for HMS (e.g. healthyminds@school.edu, hms@school.edu). Distribution of the online survey to students were conducted by email. Participating campuses created an institutional email address for HMS. Online delivery improved the authenticity of the study for students since emails come from official school accounts such as healthyminds@[school].edu. Recruitment started with a brief "pre-notice" email explaining when the HMS began and how to assess the survey

online. Survey methodologists have inferred that this initial notification can boost participation rates. Two to three days after the initial notification, the HMS principal investigators sent the recruitment email with a link to the online survey (i.e. data collection started with the recruitment email), which was then followed up with reminder email updates to non-responders (up to three reminder email updates in total, separated by five to seven days each). Altogether, students may have received up to five emails regarding participating in HMS over the three-week data collection period. Students who finished the survey or demonstrate that they do not wish to participate (by emailing the research team indicated this or not consenting on the approval page of the online survey) did not receive any further invitations. The HMS principal investigators assigned a unique survey link to each student in the randomly selected sample. The link had no importance outside of HMS. To identify the most important issues for examination in HMS, the study's primary investigators (at University of Michigan) consulted a different specialist in the field of college student mental health and reviewed the existing literature on mental health disorders among college students. In developing the HMS survey, the chief specialist used previously validated and broadly utilized instruments wherever conceivable. The HMS survey took approximately 20-25 minutes for most students to finish, and students skipped any questions that make them uncomfortable, or that they simply did not wish to answer. The Registrar's Office (or proportionate campus unit) performed a random sampling procedure to obtain the desired number of students for survey recruitment. For the randomly

selected sample of students, the Registrar's Office provided a file of student data. For all students in the random sample, the following information was gathered for recruitment, assessment of non-response bias, and investigation: First name and last name, email address, date of birth, sex, race/ethnicity, citizenship, student status, school/program year, GPA, and field of study. The data was acquired before the recruitment of individual students. The chief investigators could obtain the administrative data listed above for all students enrolled in the study under the rules of the Family Education Rights and Privacy Act (FERPA). Specifically, these surveys must help created, administered, or validated predictive tests, administered student aid programs, or enhanced instruction. HMS was consistent with these specifications in numerous ways. Most outstanding, HMS is conducted and validated mental health screening tests to determine how well they predicted academic results. More generally, HMS aims to understand how the learning environment (i.e. academic instruction) is enhanced through addressing mental health (p. 7-9.

At each participating campus, participants volunteered throughout the college campus. At most campuses, this initial sample was 4,000 students, and it is smaller at campuses with less than 4,000 students. In 2007 and 2009, students were invited through postal mail (with a $2 incentive) as well as four e-mail update reminders. Since 2010, recruitment to participate in HMS has been through email only. All students were informed that they are entering monetary sweepstakes drawing, regardless of their participation. The survey was administered utilizing Illumes web-based survey software.

According to 2016-2017, HMS *School Participation Guide*:

To send out email messages to students on each of the participating campuses, the HMS principal investigators employed Emma, an online electronic promoting, and communications department. Emma's servers facilitate at the SunGard co-area office in Nashville, Tennessee. The office is staffed 24/7 by certified engineers and only endorsed staff may gain physical access to Emma's systems. Network traffic to and from the office was directed through a dedicated firewall and terminal access to the server environment restricted to SSH (secure shell). System administration activities are isolated from database management activities. All passwords on select accounts incorporated a high level of character complexity and conformed to internally-set benchmarks. These passwords changed every three years. All web-accessible data stored by Emma is housed in a restrictive, closed architecture and 256-bit encrypted server using SSL validation from Digicert. Password accessed to Emma's web application is never submitted in explicit content. All communication interchanges between Emma's corporate headquarters and SunGard are 3DES/IKE encrypted. Concerning list access, Emma's privacy policy and terms of use outline Emma's policy; namely, that Emma will never, either during a client's contract term or at any time after that, lease, sell or share any participant client's list to or with anybody. Emma does not participate in list rental or purchasing and does not permit rented or purchased lists used as part of or in conjunction with the Emma service (p. 10-12).

Anyone, including students, may request the HMS data by completing the following steps. The data sets never contain individual identifiers. School names were also de-identified.

- Step 1: Review the large codebook. It may also be helpful to review publications from the HMS.
- Step 2: Email healthyminds@umich.edu to request the data. In the email please include three pieces of information: The role and organizational affiliation (e.g. the Ph.D. student at [name of your university]), the primary interest in using the data (e.g. to examine anxiety across race/ethnicity), and preferred data format (e.g. Stata (.dta) or SPSS (.sav).

Instrumentation

Participants completed a demographic questionnaire, Discrimination-Devaluation Scale, and the PHQ-9 to contribute data for the 2016-2017 HMS.

The Demographic Questionnaire

The demographic questionnaire was used to collect descriptive information such as the participant's age, sex, gender, and sexuality. The specific questions asked were:

1. How old are you? one =_______years old

2. What was your sex at birth? (a) 1 = *female* (b) 2= *male* (c) 3 = *intersex*

3. What is your gender identity? (a) 1 = *male* (b) 2 = *female* (c) 3 = *trans male/trans man* (d) 4 = *trans female/trans woman* (e) 5 = *genderqueer/gender non-conforming* (f) 6 = *self-identify* please specify:

4. How would you describe your sexual orientation? (a) 1 = *heterosexual* (b) 2 = *lesbian* (c) 3 = *gay* (d) 4 = *bisexual* (e) *five questioning* (f) *six self-identify*

Discrimination-Devaluation Scale

The Discrimination-Devaluation (D-D) scale surveys the extent of agreement on each of five statements, which assessed stigma whether most people will devalue or discriminate against someone with a mental disorder or a history of mental health treatment. Stigma was assessed using item ten from the survey. Based on the Discrimination Devaluation Scale (Link, 1987), participants responded to five questions included in item 10:

- I would willingly accept someone who has received mental health treatment as a close friend.
- Most people would willing accept someone who has received mental health treatment as a close friend.
- Most people feel that receiving mental health treatment is a sign of personal failure.
- Most people think less of a person who has received mental health treatment.
- Most people would willingly accept someone who has received mental health treatment as a close friend.

Participants responded on a scale ranging from (a) 1= *strongly agree* to (b) 6 = *strongly disagree*. The variable was measured as a scale variable, by summing the responses to the items and dividing by five. Higher scores on this variable indicated higher levels of perceive stigma regarding seeking mental health services.

Research conducted by Lally, ó Conghaile, Quigley, Bainbridge, and McDonald (2013) measured perceived public stigma using an adaptation of the Discrimination-Devaluation scale (D-D; Link, 1987). This is a validated scale that has indicated an internal consistency of 0.86 to 0.88 in university and community samples, respectively (Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001; Vogel & Hackler, 2007). The D-D scale surveys the extent of agreement on each of 12 statements, which assess whether most people will devalue or discriminate against someone with a mental disorder or a history of mental health treatment. The extent of agreement is measured on a five-point Likert scale. The scale is balanced so that a high level of perceived devaluation discrimination is indicated by (a) *agreement with six of the items* or (b) *by disagreement with the other six* (Link et al., 2001). The responses were coded (a) 1 = *strongly agree* (b), 3 = *no opinion*, and (c) 4 and 5 *strongly disagree*, and items were proportionately recoded so that higher scores corresponded to a higher perceived stigma. Also, a study conducted by Lally et al. (2013) calculated the mean score across the 12 items for each participant. The original D-D scale refers to ‘mental patients’ but Lally et al. (2013) expanded this concept by changing the wording to refer to people who have received mental health treatment.

To measure personal stigma, Lally et al. (2013) adapted four items from the D-D scale by replacing ‘most people’ with ‘I.’ This technique has been used in other studies measuring personal stigma (Eisenberg, Downs, Golberstein, & Zivin, 2009; Griffiths, Christensen, Jorm, Evans, & Groves, 2004). In order to adjust perceived public stigma scales to allow for the measurement of personal stigma, these four items referred to: (a) *I*

would willingly accept a person who has received mental health treatment as a close friend, (b) *I would be reluctant to date a man/woman who has received mental health treatment* (c) *I believe that a person who has received mental health treatment is just as trustworthy as the average citizen*, and (d) *I would think less of a person who has received mental health treatment*. When utilized in a previous study to measure personal stigma, a similar adapted scale demonstrated a moderately high internal consistency with a Cronbach's alpha (a) of 0.78. (Eisenberg et al., 2009).

The Patient Health Questionnaire

The PHQ-9 is a self-administered questionnaire. The PHQ-9 was distributed to higher education college students at 52 colleges and universities in the United States, and data collection commenced at the same period (Kroenke et al., 2001). The PHQ-9 questionnaire contained 14 modules, and each module includes a different set of items. Standard modules were fielded at all participating institutions. Elective modules were chosen by participating institutions from the options listed above. Survey modules plus elective modules ensure that the overall study remains reasonable in length; participating schools typically choose two elective modules, and two half modules can be combined to account for one module).

Two factors determined the number of items per module: (a) skip logic embedded within the survey (i.e. some measures are assessed only for students with individual responses to survey items), and (b) which elective modules are selected by the participating institution. Regarding the order of modules presented to students, the 'Demographics' module is always presented first, followed by the 'Mental Health Status'

module; the order of the remaining modules varies based on which elective modules are selected. Modules (a) *demographics number if items*, (b) *mental health status number of elements*, and (c) *mental health service utilization/help-seeking*, (d) *substance use,* (e) *sleep half module*, (f) *eating and body image number of items,* (g) *sexual assault*, (h) *overall health*, (i) *knowledge and attitudes about mental health and mental health services*, (j) *upstander/bystander behaviors half module number of items*, (k) *campus climate culture*, (l) *competition,*(m) *resilience and coping*, (n) *persistence and retention* and (o) *financial stress*.

According to 2016-2017, HMS *School Participation Overview Guide*:

> The PHQ-9 evaluated nine diagnoses, which relate to the DMS-IV 2000 diagnoses. HMS was facilitated online, and the instrument is maintained and customized by the HMS research team at U-M. Data is safely stored on the HMS servers. HMS was designed to secure the privacy of participants. Student information is never attached to survey data. Based on embedded skip rational, some measures are evaluated only for students with specific responses to survey items. The HMS survey took twenty to twenty-five minutes and conducted entirely online. Students may skip any questions that they did not wish to respond to. The test-retest reliability of the PHQ-9 was analyzed using Pearson product correlation. An annual online survey, HMS aimed to evaluate mental health status, health behaviors, and health service usage among college and university student populations. The study gathered data on these domains: emotional health, resources and support, academic and social environment, and overall well-being

and lifestyle (e.g. substance use, physical activity, sleep, etc.). The domains fit the research study because they included the modules related to the key variables stigma, use of services, and help-seeking behaviors. Permission to access the 2016-2017 HMS data was not required, but the appropriate use of the data was referenced. Since this study utilized archival data, an application for exemption was approved by Walden University Institutional Review Board (p. 5-6).

According to the recent survey by King, Eisenberg, Zheng, Czyz, Kramer, Horwitz, and Chermack (2015), sensitivity and specificity of the PHQ-9 for a predictor of those who would not finish mandatory treatment use was 71% did not correspond with a counselor. The King et al., study (2015) in contrast presented that 27% of the cases participating in treatment responded, which is a limitation of the survey. The research study by King et al. (2015) used the HMS to track help-seeking behaviors online and examined the effect of an online intervention for college students at risk for suicide. Electronic Bridge to Mental Health Services (eBridge) was used and included personalized feedback and voluntary online counseling delivered by motivational interviewing principles. The Participants were 76 college students (45 women, 31 men; mean age 22.9 years, SD 5.0 years) at a large public university who had screened positive for suicide risk, defined by at least 2 of the following: suicidal thoughts, history of suicide attempt, depression, and alcohol abuse. Racial/ethnic self-identification was primarily Caucasian (n = 54) and Asian (n = 21), and students were randomized to eBridge or the control condition, which was personalized feedback only, offered in plain report format (King et al., 2015). Outcomes were measured at 2-month follow-up results

despite relatively modest engagement in online counseling (29% of students posted one message), students assigned to eBridge reported significantly higher readiness for help-seeking scores, especially readiness to talk to family, talk to friends, and seeing a mental health professional (King et al., 2015). Students assigned to eBridge also reported lower stigma levels and were more likely to link to mental health treatment. Findings suggest that offering students personalized feedback and the option of online counseling, using motivational interviewing principles has a positive impact on students' readiness to consider and engage in mental health treatment (King et al., 2015). Further research is warranted to determine the robustness of this effect, the mechanism by which improved readiness and treatment linkage occurs, and the long-term impact on student mental health outcomes (King et al., 2015).

Current research conducted by Fortney et al. (2017) examined treatment seeking among community college students using a web-based survey. Veteran and civilian community college students (n = 511) were screened for mental health disorders and reported their perceptions of (a) *the need for treatment* (b) *effectiveness of treatment* (c) *stigma surrounding mental illness*, and (d) *use of services* (Fortney et al., 2017). Regression analysis sought to identify predictors of medicine and therapy treatment use (Fortney et al., 2017). The study measured sociodemographic and clinical characteristics using items from the HMS (Fortney et al., 2017). Mental disorders were assessed by using validated screening instruments for depression (nine-item PHQ-9), generalized anxiety disorder (seven-item Generalized Anxiety Disorder screener), and posttraumatic stress disorder (Primary Care PTSD screen; Fortney et al., 2017).

Half (*N* = 240, 47%) of the 511 participants were 23-year old or under, 371 (73%) were female, 146 (29%) were from racial ethnic minority groups (black, *n* = 82, 16%; other, *n* = 64, 13%), 147 (29%) were married, 320 (63%) were employed full or part-time, 278 (54%) were insured, 241 (47%) reported that they struggled financially, and 223 (44%) reported that finances were low (Fortney et al., 2017). The unweighted percentage of veterans in the sample was 29% (*n* = 149), but the weighted percentage (reflecting the proportion in the student population of the 11 community colleges participating in the study) was 3.7%. Three-quarters of veterans (*n* = 114, 77%) reported having been deployed (Fortney et al., 2017). Compared with regular people, veterans were more likely to be 23 or older (*n* = 187, 52%, versus *n* = 137, 92%, *p* = .001), less likely to be female (*n* = 270, 75%, versus *n* = 33, 22%, *p* = .001), and more likely to be married (*n* = 100, 28%, versus *n* = 84, 56%, *p* = .001; Fortney et al., 2017).

A large percentage of the 511 participants screened positive for depression (*n* = 165, 32%), generalized anxiety disorder (*n* = 152, 30%), PTSD (*n* = 112, 22%), binge drinking (*n* = 182, 36%), illegal drug use (*n* = 84, 16%), suicidal ideation in the past two weeks (*n* = 94, 18%), acute suicidal ideation in the past year (*n* = 70, 14%), and nonlethal self-injury (*n* = 75, 15%). Compared with civilians, veterans were more likely to screen positive for depression (*n* =115, 32%, versus *n* = 70, 47%, *p* = .01), post-traumatic stress disorder (*n* = 77, 21%, versus *n* = 55, 37%, *p* = .01), and binge drinking (*n* = 127, 35%, versus *n* = 76, 51%, *p* =.01; Fortney et al., 2017). Over half of the 511 participants (*n* = 290, 57%) reported a need for mental health treatment in the past year (Fortney et al., 2017). Two-thirds (*n* = 338, 66%) believe that psychotherapy would be useful, and 301

(59%) believe that psychotropic medications would be helpful (Fortney et al., 2017). Veterans were less likely than civilians to see that medications were helpful ($n = 70$, 47%, versus $n = 216$, 60%, $p = .03$) and more likely to perceive public stigma ($p = .01$); Fortney et al., 2017).

Thirty percent ($n = 151$) reported taking psychotropic medications in the past year (Fortney et al., 2017). Among sociodemographic variables, age was a significant predictor of medication use (Fortney et al., 2017). Compared with students ages 18–22, those aged 23–30 (odds ratio [$OR = 4.51$], $p = .029$), 31–40 ($OR = 4.85$, $p = .035$) and 41 and older ($OR = 8.99$, $p = .004$) were significantly more likely to report taking psychotropic medications (Fortney et al., 2017). None of the clinical screeners were significant predictors of medication use (Fortney et al., 2017). Perceived need for treatment was a significant and substantial predictor of medication use ($OR = 7.81$, $p = .001$; Fortney et al., 2017). The perceived effectiveness of psychotropic medications was a significant predictor of medication use ($OR = 3.38$, $p = .012$; Fortney et al., 2017). Neither personal-stigma nor public-stigma were significant predictors of the use of medication (Fortney et al., 2017). A sensitivity analysis included psychotherapy as an independent variable in the regression equation predicting psychotropic medication use, and its effect was significant and substantial ($OR = 4.05$, $p =.03$), suggesting that the two treatments (psychotherapy and medications) are correlative (Fortney et al., 2017). In a second sensitivity analysis that did not use weights, insurance status and screening positive for generalized anxiety disorder and PTSD were positive and significant ($p = .05$) predictors of medication use (Fortney et al., 2017).

A sensitivity analysis included psychotherapy as an independent variable in the regression equation predicting psychotropic medication use, and its effect was significant and substantial (*OR* = 4.05, *p* = .03), suggesting that the two treatments (psychotherapy and medications) are correlative (Fortney et al., 2017). In a second sensitivity analysis that did not use weights, insurance status and screening positive for generalized anxiety disorder and PTSD were positive and significant (*p* = .05) predictors of medication use (Fortney et al., 2017).

Fifty-six (11%) of the participants reported receiving psychotherapy in the past year (Fortney et al., 2017). Of the sociodemographic variables, only low financial status was a significant predictor. Among the clinical screeners, having a positive post-traumatic stress disorder screen was a significant predictor of psychotherapy use (*OR* = 2.78, *p* = .037; Fortney et al., 2017). Perceived need for treatment, perceived effectiveness of therapy, and personal or public stigma were not significant predictors of receiving psychotherapy (Fortney et al., 2017). A sensitivity analysis included the use of psychotropic medications as an independent variable in the regression equation predicting psychotherapy use, but it was not a significant predictor (Fortney et al., 2017). In a second sensitivity analysis not including the use of weights, veteran status, male gender, perceived need, and screening positive for generalized anxiety disorder were positive and significant (p = .05) predictors of psychotherapy use (Fortney et al., 2017).

Operationalization Definitions

Gender: Participants provided responses to "what was your sex at birth?" of (a) *female*, (b) *male*, or (c) *intersex*.

Gender identity: Gender will be used to indicate the gender identity of participants. Based on the guidance from the Trevor Project SDS90, participants provided responses of (a) *male*, (b) *female*, (c) *trans male/trans man*, (d) *trans female/trans woman*, (e) *genderqueer/gender non-conforming*, or (f) *self-identify*. Based on Trevor Project SDS88 and SDS89, *self-identify/gender identity* free response. How do you describe your sexual orientation? (a) *heterosexual*, (b) *lesbian*, (c) *gay*, (d) *bisexual*, (e) *questioning*, or (f) *self-identify*. The variable measured as a demographic variable. The I collapsed the gender variable into separate categories: male and female.

Help seeking behaviors: Help-seeking behaviors were assessed using item twelve from the survey. Participants responded to the two questions included in item twelve (e.g. In the past twelve months, have you received counseling or support for your mental or emotional health from any of the following sources). Participants responded zero or one, indicating (a) *use* or (b) *non-use* of a help-seeking behavior. I combined the questions and calculated an average of the questions on the item. The variable measured as a scale variable. Help-seeking was related to diminished acknowledgment of mental health issues (Alvidrez et al., 2008; Mishra et al., 2008), negative attitudes toward seeking counseling and therapy services (Conner et al., 2010), and diminished goal to apply for advice (Cooper et al., 2003; Hackler et al., 2010; Vogel et al., 2007).

Stigma: Stigma was assessed using item ten from the survey. Based on the Discrimination Devaluation Scale (Link, 1987), participants responded to five questions included in item ten:

- I would willingly accept someone who has received mental health treatment as a close friend.
- Most people would willingly accept someone who has received mental health treatment as a close friend.
- Most people feel that receiving mental health treatment is a sign of personal failure.
- Most people think less of a person who has received mental health treatment.
- Most people would willingly accept someone who has received mental health treatment as a close friend).

Participants responded on a scale ranging from (a) strongly agree to (b) strongly disagree. The variable was measured as a scale variable by summing the responses to the items and dividing by five.

Use of mental health services: Use of mental health services was assessed using item eleven from the survey. Participants responded to the two questions included in item eleven (e.g. *In the past twelve months, have you received counseling or therapy for your mental or emotional health from a health professional*). Participants responded (a) 0 = *no* or (b) 1 = *yes*. The researcher combined the questions and calculated an average of the two questions. The variable measured as a scale variable. Need for services, regardless of whether evaluated or perceived, appeared to be high service utilization of any sort e.g. well-being or psychological well-being (Broman, 2012; Hayes et al., 2011; Masuda et al., 2009). Use of mental health services was assessed using item eleven from the survey. Participants responded to the two questions included in item eleven (e.g., In the past

twelve months have you received counseling or therapy for your mental or emotional health from a health professional). Participants responded (a) zero for no or (b) one for yes. I combined the questions and calculated an average of the two questions. The variable measured as a scale variable.

Data Analysis Plan

To address the research questions, I used a convenience sampling survey technique, and deductive approach was based on using a MANOVA to predict the perception of the dependent variables of stigma in help-seeking behaviors and use of mental health treatment services. The MANOVA, explained by Tonidandel and LeBreton (2013), is known for data analysis from an experimental design with two or more dependent variables (DV). This is followed by the univariate analyses, which is applied to the two independent variables (IV) of gender biological sex at birth, and gender identity differences. Next is a factorial multivariate ANOVA design to look at the main effects of male biological sex and male gender, along with identity and female biological sex and gender identity in college students with PTSD as reported in the 2016-2017 HMS. A Factorial ANOVA tests whether two or more groups differ from each other significantly in one or more characteristics, and then compares the means across two or more independent variables (Statistics Solutions, 2013).

A deductive approach was used to deal with critical thinking, where the possible circumstances and results of the relationship can be tried using speculations (Razafsha et al., 2012). The dependent variables were the perception of stigma in use of mental health treatment services and help-seeking behaviors. The independent variables were gender

(biological sex at birth) and sexual identity. To test the research hypotheses, I employed a factorial MANOVA and univariate factorial ANOVA to predict a correlational relationship between the IVs and DVs in individuals that may be experiencing symptoms of PTSD.

A convenience sampling survey model was utilized to test the hypothesis using various illustrative factors, for instance, to look at (a) *the measure of the relationship between the rule factors and indicator factors*, and (b) *the degree to which every indicator variable contributed to the relationship* (Salvendy & Yan, 2009). The use of regression as a prescient strategy broadly was recorded in the emotional well-being field. Salvendy and Yan (2009) analyzed the predictive utility of statistic attributes of the demographic background characteristics, education level, religiosity, relationship status, sexual orientation, and related monetary circumstances, on psychological wellness shifts on the school ground. The analysts composed a model for every school utilizing relapse prevention, to recognize factually critical factors to create a regression model that accurately predicted student characteristics (Salvendy & Yan, 2009). Also, irregular impacts on logistic regression models were evaluated to ascertain intra-class (inside school) relationship coefficients, as a measure of the degree of which the school level represented the general fluctuation in psychological well-being (Salvendy & Yan, 2009).

I conducted the data management and analysis using SPSS version 24 and screened the dataset for outliers before carrying out the analysis. Standardized scores for the dependent variables was calculated. Standardized scores greater than ±3.29 are considered evidence of outliers and those values were removed from the dataset (Stevens,

2009). These values represent data points greater than 3.29 units from the sample mean, which resulted in data analysis (Fidell & Tabachnick, 2013). I removed any cases missing significant amounts of data (i.e. more than 20% of missing responses). Before conducting the analysis, assessed the assumptions of normality using the Shapiro-Wilk test, and homogeneity of variance using the Levene's test. When the assumption of homogeneity of variance was not met, I reported the results of statistical analysis without assuming equal variance across the groups.

To address the research questions, I conducted a factorial MANOVA and factorial ANOVA. This analysis was best suited and allowed me to determine the correlational relationship between the IVs and the DVs. Specifically, I intended to determine if there are gender biological sex at birth and gender identity differences in attitudes and behaviors regarding the perception of stigma in use of mental health treatment services and help-seeking behavior scores of individual college participants. I reported the t statistic and p-value from the analysis. I used an alpha level of 0.05 to determine statistical significance for the analyses.

Threats to Validity

The PHQ-9 does not yield a useful result when compared to a clinical diagnosis (Spitzer & Williams, 2001). However, the PHQ instrument has been proficiently validated against clinical diagnosis and observed to be a more reliable indicator than self-report diagnosis with symptoms of PTSD (Eisenberg et al., 2007; Kleinet al., 2011).

Test-Retest Reliability

The test-retest reliability of the PHQ-9 was analyzed using Pearson product correlation (r = 0.89 and 0.86, sequentially). The result obtained from the PHQ-9 questionnaires was computed on individual college students.

Ethical Procedures

For the protection of human participants, a certification from "The National Institutes of Health (NIH) Office of Extramural Research" was acquired. This study used archival data; an application for exempt review status was submitted for approval to the Walden University Institutional Review Board IRB approval number is 03-26-18-0122307. This research meets the requirements for exemption review since personal identification information of the participating students, including student's name, their locations, date of birth and birth order, student ID number, and social security number was removed from the data set before release to the primary researcher. The sample consisted of higher education students from 26 colleges and universities participating in the survey incorporated in the 2016-2017 HMS data set. There was no personal identification or tracking of responses, and no potential risk to human participation in the research.

A cautious ethical procedure to the nature of this study and the consequences on the respondents as the vulnerable population was considered. Consent and confidentiality forms were distributed to each participant. The informed consent detailed the study procedures, and the benefit and risks involved in participating in the study (Appendix B). The potential participants were informed of having no obligation to take part in the study. Participants were advised that it took 10-20 minutes to complete the survey and were

given a chance to contact the researchers and their advisors of any inquiries or concerns regarding the study. Participants was not required to respond to all of the items in the survey and participants were told that they could withdraw from completing the questionnaire at any time, without any consequences. Participant responses were kept confidential, no identifying information was collected from the participants, and the dataset remained accessible only to the primary researchers and secondary researchers with permission.

The survey was designed to secure and protect the student's privacy and confidentiality. The Survey Sciences Group, LLC (SSG) maintained all study records by using Secure Sockets Layer (SSL) encryption innovation that guarantees that responses are not intercepted during transmission. They additionally provided physical and logical limitations to safeguard the data once collected by the institution that manages the HMS (D. Eisenberg, personal communication, July 2016).

Summary

The proposed study used secondary data collected by the 2016-2017 HMS using the PHQ-9. A sample of higher education college students in approximately 26 colleges and universities across the United States participated in the present study. I conducted a quantitative sampling survey technique that assessed correlational relationships between perceptions of stigma in use of mental health treatment services and help-seeking behaviors of college students with symptoms of PTSD.

In this chapter, the research design and rationale, the population and sample, the procedures for recruitment, participation, data collection, the methods, instruments, data analysis, and ethical considerations were described and discussed.

Chapter 4: Results

Introduction

The goal of this research was to fill the gap in the literature concerning gender and gender identity differences as predictors of attitudes toward perceived stigma in help-seeking behaviors and use of mental health treatment services (Bilican, 2013). Perceived stigma is fearing a negative evaluation upon receiving mental health care (Deane & Chamberlan, 1994). The stigma against psychological issues and the fear of being considered insane hinders obtaining help (Kushner & Sher, 1989; Sirey et al., 2001; Jackson et al., 2005). Around 90% of individuals surveyed report a fear of being called insane that keeps them from utilizing psychological services (Barbaro & Nelson, 1985). To address the research questions guiding the study, I first conducted one-way ANOVA testing for differences between groups based on sexual orientation, on measures of perception of stigma, use of MHTS, and HSB regarding receiving mental health services. Second, I also conducted one-way ANOVA testing for differences between groups based on gender identity on measures of use of MHTS and HSB. Third, I conducted a MANOVA to assess for differences between groups based on gender identity and sexual orientation on a linear combination of the dependent measures of perception of stigma in help–seeking behaviors and use of services in college students with PTSD symptoms as reported in the 2016-2017 HMS.

Data Collection

This research study was nonexperimental, and used secondary data collected in the HMS during the academic year 2016-2017 from students of higher education in 26

colleges and universities across the United States, utilizing the PHQ-9 (Appendix A). PHQ-9 is a web-based survey questionnaire of college students conducted yearly in randomly chosen universities and colleges across the country. Participants were advised that it took 10 to 20 minutes to complete the survey and were given a chance to contact the researchers and their advisors with any inquiries or concerns regarding the study. Participants were not required to respond to all of the items in the survey and were told that they could withdraw from completing the questionnaire at any time without any consequences. Two to 3 days after the initial notification, the HMS principal investigators sent the recruitment e-mail with a link to the online survey (i.e. data collection started with the recruitment e-mail), which was then followed up with reminder e-mail updates to nonresponders (up to three reminder e-mail updates in total separated by 5 to 7 days each). For reliability of analyses, SPSS version 24 was used in performing data screening of the dataset for outliers before carrying out the analysis.

Research Questions and Hypothesis

In this study, I used secondary data from a sample of college students who self-reported with PTSD during the 2016-2017 administration of the HMS. The research questions guiding this study were the following:

RQ1: Are there sex-based differences in perception of stigma in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS?

RQ2: Are there sex-based differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS?

RQ3: Are there sex-based differences in help-seeking behaviors in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS?

RQ4: Are there gender identity differences in perception of stigma in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

RQ5: Are there gender identity differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS?

RQ6: Are there gender identity differences in help-seeking behaviors in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS?

RQ7: Are there biological sex differences in the perception of stigma, help-seeking behaviors, and use of services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS?

RQ7A: Are gender identity differences in the perception of stigma, help-seeking behaviors, and use of services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS?

Descriptive

I explored the variables regarding gender identity and sexual orientation in the data set. The exploration of the gender identity variable indicated there were two categories that had exceedingly small sample sizes. Those two groups are (a) trans male/ trans man and (b) trans female/trans woman (Table 1). I elected to collapse these two categories into one to ensure transgender people were not excluded from the analysis due

to sample size and made this decision based on similarities between the categories (See Table 2).

Table 1

Gender Identity Frequencies

Gender category	N	% of Total
Male	16315	30.3
Female	35182	65.4
Trans male/ trans man	129	0.2
Trans female/trans woman	47	0.1
Genderqueer	542	1.0
Self-identify	321	0.6
Missing	1224	2.3

Table 2

Sexual Orientation Frequencies

Gender Category	*N*	% of Total
Male	16315	30.3
Female	35182	65.4
Trans nan/trans woman	176	0.3
Genderqueer	542	1.0
Self-identify	321	0.6
Missing	1224	2.3

The exploration of the sexual orientation variable indicated that each response option/category in the question had enough sample for inclusion in the analyses. Regarding stigma, there were six questions to be included in the calculation of this variable. To this point, I created two variables regarding stigma. One contained only five items. The second contained all six questions (Table 3). I used a MANOVA to predict the perception of the dependent variables of stigma. This was followed by the univariate

ANOVA analyses, which was applied to the independent variables (IV) of gender identity differences.

I assessed stigma using item 10 from the survey. Based on the Discrimination Devaluation Scale (Link, 1987), participants responded to five questions included in item 10:

- I would willingly accept someone who has received mental health treatment as a close friend.
- Most people would willing accept someone who has received mental health treatment as a close friend.
- Most people feel that receiving mental health treatment is a sign of personal failure.
- most people think less of a person who has received mental health treatment,
- Most people would willingly accept someone who has received mental health treatment as a close friend.

Participants responded on a scale ranging from 1 (strongly agree) to 6 (strongly disagree). The variable was measured as a scale variable by summing the responses to the items and dividing by five. Higher scores on this variable indicated higher levels of perceived stigma regarding seeking mental health services.

Table 3

Descriptive Characteristics and Stigma Variables

	N	Min	Max	*M*	*SD*
Stigma 5	34437	5.00	30.00	17.0915	2.59909

Stigma 6	34418	6.00	36.00	22.2273	3.22154

Mental health services were assessed using item 11 from the survey. Participants responded to the two questions included in item 11 (e.g., In the past 12 months, have you received counseling or therapy for your mental or emotional health from (a) *family member* (b) *religious contact* (c*) support group* (d) *other clinical sources* (c) *informal support*. Participants responded 0 (no) or 1 (yes). I combined the questions and calculated an average of the two questions. The variable measured as a scale variable. Need for services, regardless of whether evaluated or perceived, appeared to be high service utilization of any sort of well-being including psychological well-being (Broman, 2012; Hayes et al., 2011; Masuda et al., 2009). Regarding mental health therapy service, I used a MANOVA to predict the use of mental health services. Higher scores on this variable indicated a higher likelihood the respondent had received and was currently engaged in mental health services with a mental health professional (Table 4).

Table 4

Descriptive Characteristics for Mental Health Treatment Services

	N	Min	Max	*M*	*SD*
MHTS	11959	2.00	5.00	3.7479	0.96488

Note. MHTS = mental health treatment services

For the third step of my analysis, I used a factorial MANOVA to measure seeking help from a mental health professional for a particular person or relationship. Help-seeking behaviors were assessed using item 12 from the HMS. Participants responded to the five questions included in item 12. The question was: In the past 12 months, have you

received counseling or support for your mental or emotional health from any one of the following sources?

- family member
- religious contact
- support group
- other clinical sources
- informal support

Participants responded 0 or 1, indicating 0 (use) or 1 (nonuse) of a help-seeking behavior. I combined the questions and calculated an average of the questions on the item. The variable measured as a scale variable. Higher scores on this variable indicated having sought mental health services from more persons or relationships (Table 5).

Table 5

Descriptive Characteristics for Help Seeking Behaviors (HSB)

	N	Min	Max	*M*	*SD*
HSB	30622	2.00	10.00	3.9614	1.19129

Note. HBS = Help-Seeking Behaviors

I conducted a MANOVA to assess for differences between groups based on gender identity on a linear combination of the dependent measures of perception of stigma, help–seeking behaviors, and uses of services. Assumption testing is a critical aspect of confidently running MANOVAs. The results of each assumption test are presented below.

The sample size assumption for MANOVA states that there must be more cases per cell than there are dependent variables. In this case, there are three dependent

variables. To this point, there are more than enough cases in each cell for every dependent variable included in the analysis. The data indicated that there were no violations of the sample size assumption. I tested the assumption of both univariate and multivariate normality. The results of the univariate normality analysis did indicate that each of the variables included in the analysis lacked normal distribution (See Table 6). A comparison of the 5% trimmed means for these variables indicated that while not normally distributed, the variables were not abnormally influenced by outlying cases and should not be removed from the analysis (See Table 7). The data indicated a violation of the assumption of multivariate normality as the Mahalanobis Distance value of 31.053 exceeded the $\chi^2 = 16.27$; however, while this difference indicate that there are cases outlying the χ^2 value the Cook's Distance value = 0.02 did not reach a critical value. This indicates that the outliers did not abnormally influence the results of the MANOVA.

Table 6

Normality Tests

Measure	Kolmogorov – Smirnov statistic	*df*	*p*
Stigma 5	0.10	7407	0.000*
Stigma 6	0.11	7407	0.000*
MHTS	0.23	7407	0.000*
HSB	0.17	7407	0.000*

Note. MHTS = Mental Health Treatment Services. HSB = Help-Seeking Behaviors. * - Significance indicates violation of normality.

Table 7

Five Percent Trimmed Mean and Mean Comparison

Measure	5% trimmed mean	Standard mean
Stigma – 5	16.77	16.81
Stigma – 6	22.00	22.13
MHTS	3.79	3.82
HSB	4.14	4.12

Note. MHTS = Mental Health Treatment Services. HSB = Help-Seeking Behaviors

I generated a scatterplot to test the linearity of the data. The results indicated a straight line linear relationship and no violations of this assumption. I also assessed the assumption of multicollinearity and there were no serious violations of the assumption. Specifically, several variables were barely correlated. The lack of correlation is not a violation; rather, an indication that the variables are not likely going to be significantly predictive of differences in the analysis.

Table 8

Dependent Variable Correlation

	Stigma 5	MHTS	HSB
Stigma 5	–		
MHTS	- 0.031*	–	
HSB	- 0.023*	0.051*	–

Note. MHTS = Mental Health Treatment Services. HSB = Help-Seeking Behaviors. * $p = 0.01$

The lack of violations related to these assumptions provide the necessary support for the researcher to move forward with the two MANOVAs within the analysis. The data indicated there were some issues regarding Levene's Test of Equality of Error Covariance (See Table 9). Specifically, the data indicated a violation of Levene's assumption for health–seeking behaviors.

Table 9

Levene's Test for Gender Identity by Measure

Measure	Levene's Statistic	*df*	*p*
Stigma – 5	2.054	4, 7398	0.084
MHTS	1.906	4, 7398	0.106
HSB	2.901	4, 7398	0.021*

Note. MHTS = Mental Health Treatment Services. HSB = Help-Seeking Behaviors. * Denotes violation of Levene's Test of Homogeneity of Variances

I used a MANOVA to measure perception of stigma based on gender biological sex at birth and gender identity differences in MHTS and HSB. Gender biological sex at birth and gender identity were assessed using the demographic questionnaire to collect descriptive information such as the participant's age, sex, gender, and sexuality. The specific questions asked were:

1. How old are you? 1=_______years old

2. What was your sex at birth? 1 (*female*) 2 (*male*) 3 (*intersex*)

3. What is your gender identity? 1 (*male*) 2 (*female*) 3 (*trans male/trans man*) 4 (*trans female/trans woman*) 5 (*genderqueer/gender non-conforming*) 6 (*self-identify*) please specify:

4. How would you describe your sexual orientation? 1 (*heterosexual*) 2 (*lesbian*) 3 (*gay*) 4 (*bisexual*) 5 (*questioning*) 6 (*self-identify*)

The results of the MANOVA indicated some directional differences between groups based on gender identity on a linear combination of the dependent variable of perception of stigma, MHTS, and HSB: $\lambda = 0.992$, $F(12, 19568) = 5.007$, $p < .001$. While significant, the effect was weak, $\eta^2 = 0.003$. When the results for the dependent variables were considered separately, there were directional differences between groups based on gender identity for each respective measure within the analysis (See Table 10). Again, when the results were considered individually the tests indicated some directional differences with no effect sizes. These results, in line with previous results, suggests that the directional differences of these results were likely driven by the size of the sample and not measurable differences between the groups.

Evaluation of Hypotheses Results

Table 10

Significant Differences for Dependent Measures within the MANOVA

	F	*df*	*p*	η^2
Stigma 5	3.683	4, 7403	0.005	0.002
MHTS	6.132	4, 7403	0.000	0.003
HSB	5.647	4, 7403	0.000	0.003

Note. MHTS = Mental Health Treatment Services. HSB = Help-Seeking Behaviors.

Research Hypothesis 1 (RQ1): There are sex-based differences in perception of stigma in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS. I conducted a one–way ANOVA testing for differences between groups based on sexual orientation on measures of perception of stigma regarding receiving mental health services. The results indicated that there were violations of Levene's test of homogeneity of variances for several variables. As such, the researcher elected to report the Welch statistic when reporting results for the variables that had violations of Levene's test (See Table 11).

Table 11

Levene's Test for Sexual Orientation and Perception of Stigma

Measure	Levene's Statistic	*df*	*p*
Stigma 5	4.576	5, 34305	0.000*
Stigma 6	3.744	5, 34286	0.002*

* – Denotes violation of Levene's Test of Homogeneity of Variances

The results of the ANOVAs indicated that there were some directional differences between groups based on sexual orientation on measures of perception of stigma. Specifically, there were directional differences across both measures (See Table 12). However, a closer examination of the results indicated that the effect sizes associated

with these directional differences are weak. The mean score for sexual orientation and perception of stigma for heterosexual 17.13, lesbian 16.86, gay 16.68, bisexual 16.89, and questioning 16.89. Heterosexuals tended to be the highest in directional difference 17.13 and gays tended to be the lowest in directional difference 16.68. Heterosexuals tended to be the highest and gays tended to be the lowest perception of stigma between groups based on sexual orientation on measures of perception of stigma (a) *I would willingly accept a person who has received mental health treatment as a close friend*, (b) *I would be reluctant to date a man/woman who has received mental health treatment* (c) *I believe that a person who has received mental health treatment is just as trustworthy as the average citizen*, and (d) *I would think less of a person who has received mental health treatment* and gay reported less. Instances where there are some directional differences and no effect sizes indicate that the directional differences are being driven by a large sample size, not measurable differences that can be attributed to group differences. Post hoc analyses using the Scheffé post hoc criterion indicated some directional difference. Indeed, an examination of the means plot (See Figure 1) indicated that the directional differences between the groups are nominal 16.87 to 17.13.

Table 12

Levene's Test for Sexual Orientation and Perception of Stigma

Measure	*F*	*df*	*p*	partial η^2
Stigma 5	11.518	5, 2009	0.000	0.001
Stigma 6	3.350	5, 2009	0.005	0.0005

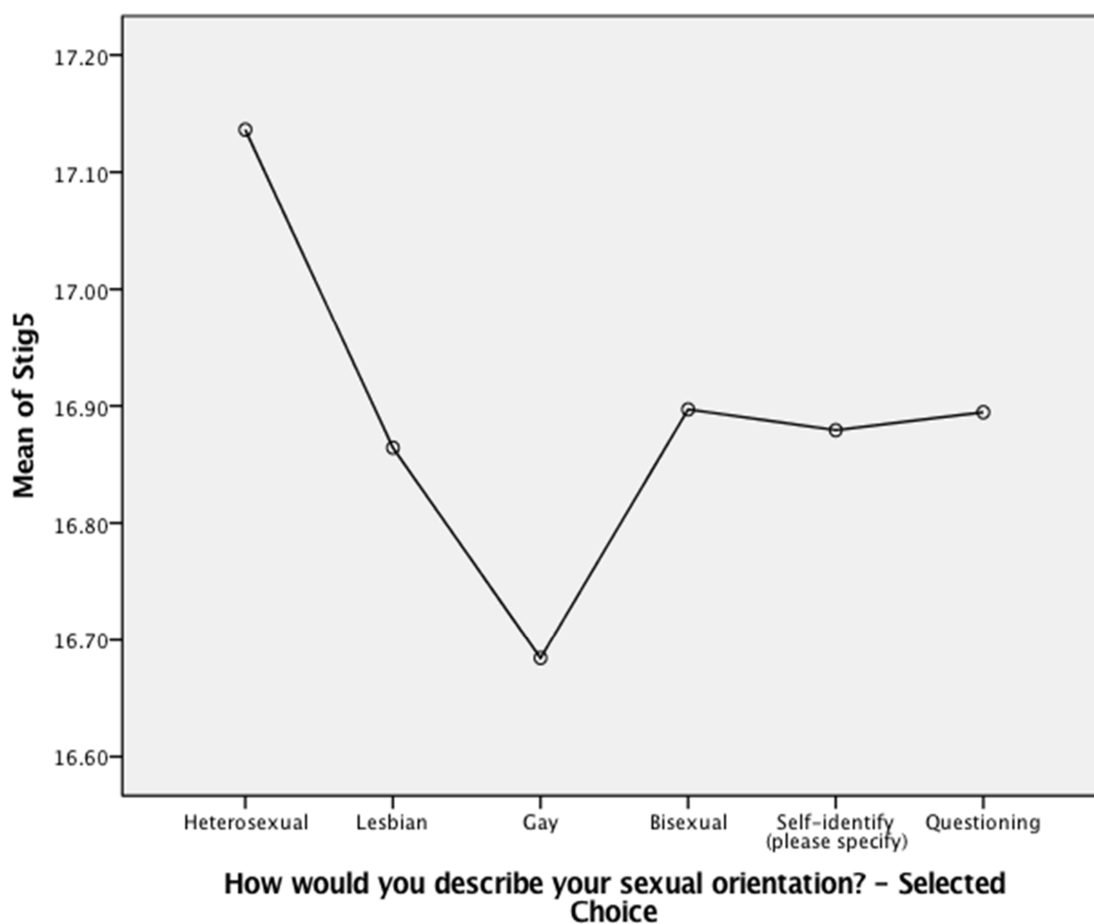

Figure 1. Means plot for sexual orientation by perception of stigma.

$H_0$2: There are sex-based differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS. I conducted a one-way ANOVA testing for differences between groups based on sexual orientation on measures of MHTS. The results indicated that there were no violations of Levene's test of homogeneity of variances for MHTS (See Table 13).

Table 13

Levene's Test for Sexual Orientation and MHTS

Measure	Levene's statistic	*df*	*p*
MHTS	2.056	5, 11928	0.068

Note. MHTS = Mental Health Treatment Services. * – Denotes violation of Levene's Test of Homogeneity of Variances

The results of the ANOVAs indicated that there were some directional differences between groups based on sexual orientation on measures of MHTS (See Table 14). The mean score for heterosexuals 3.71, lesbian 3.87, gay 3.79, bisexual 3.86, self-identify 3.96, and questioning 3.76. Lesbian's tended to be the highest in directional difference 3.87 and questioning tended to be the lowest in directional difference 3.76. Lesbian's tended to be the highest and questioning tended to be the lowest between groups based on sexual orientation on measures of MHTS in the past 12 months, have you received counseling or support for your mental or emotional health from (a) *family member* (b) *religious contact* (c*) support group* (d) *other clinical sources* (c) *informal support*. However, a closer examination of the results indicated that the effect size associated with this directional difference is weak. Instances where there are some directional differences and no effect sizes indicate that the directional differences are being driven by a large sample size, not measurable differences that can be attributed to group differences. Indeed, an examination of the means plot (See Figure 2) indicated that the directional differences between the groups are nominal 3.70 to 4.00.

Table 14

ANOVA Results on Sexual Orientation by Study Measure MHTS

Measure	*F*	*df*	*P*	partial η^2
MHTS	15.459	5, 1124	0.000	0.006

Note. MHTS = Mental Health Treatment Services

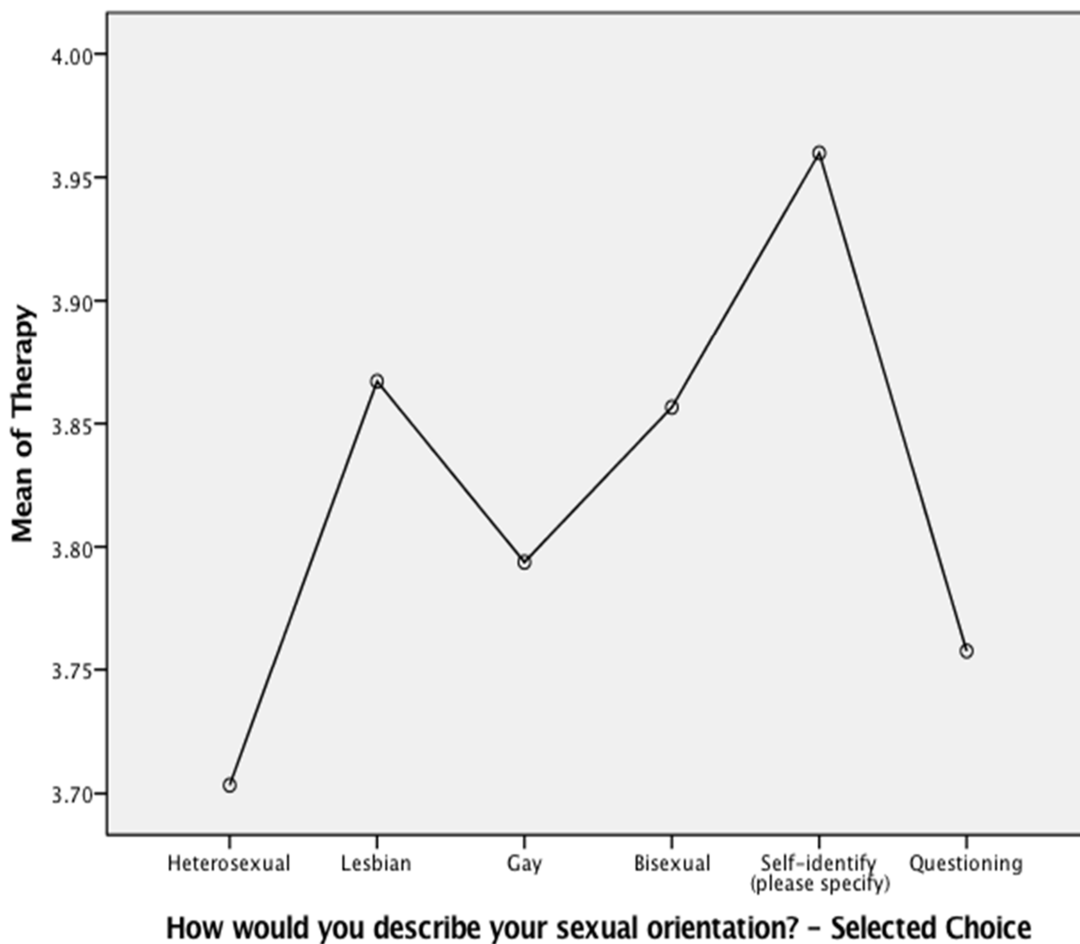

Figure 2. Means plot for sexual orientation by MHTS.

$H_0$3: There are sex-based differences in help-seeking behaviors in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS. I conducted a one-way ANOVA testing for differences between groups based on sexual

orientation on measures of HSB. The results indicated that there were violations of Levene's test of homogeneity of variances for MHTS (See Table 15). As such, I elected to report the Welch statistic when reporting results.

Table 15

Measure	Levene's statistic	*df*	*p*
HSB	2.433	5, 30533	0.033*

Note. HSB = Help-Seeking Behaviors. * – Denotes violation of Levene's Test of Homogeneity of Variances

The results of the ANOVAs indicated that there were some directional differences between groups based on sexual orientation on measures of HSB (See Table 16). The mean score for sexual orientation and HSB reported heterosexual 3.92, lesbian 3.94, gay 3.83, bisexual 4.12, self-identify 4.11 and questioning 4.08. Bisexual's tended to be the highest in directional difference 4.12 and gays tended to be the lowest in directional difference 3.83. Bisexual's tended to be the highest and questioning tended to be the lowest between groups based on sexual orientation on measures of HSB in the past 12 months, have you received counseling or support for your mental or emotional health from (a) family member (b) religious contact (c) support group (d) other clinical sources (c) informal support. However, a closer examination of the results indicated that the effect size associated with these directional differences is weak. Instances where there are directional differences and no effect sizes indicate that the directional differences are being driven by a large sample size, not measurable differences that can be attributed to group differences. Indeed, an examination of the means plot (See Figure 3) indicated that the directional differences between the groups are nominal 3.80 to 4.10.

Table 16

ANOVA Results on Sexual Orientation and HSB

Measure	*F*	*df*	*P*	partial η^2
HSB	18.961	5, 2045	0.000	0.003

Note. HSB = Help-Seeking Behaviors

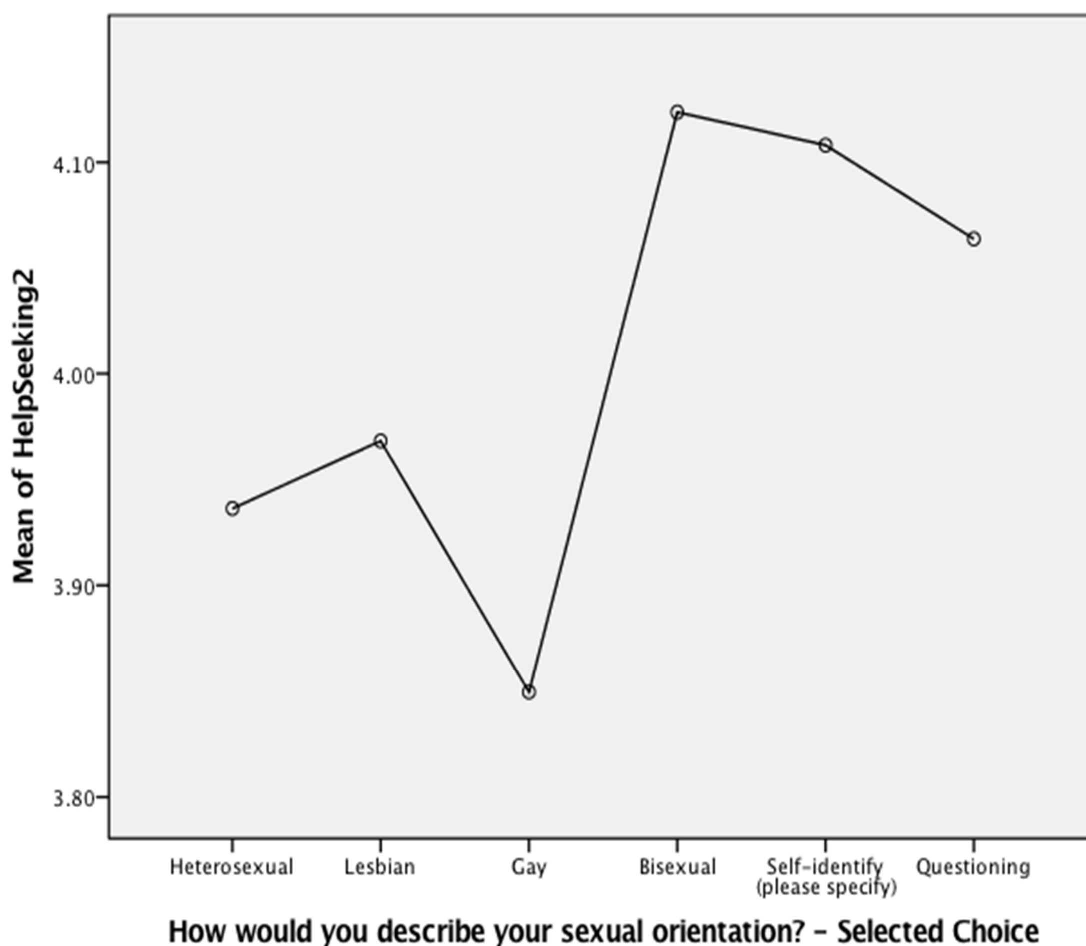

Figure 3. Means plot for sexual orientation by HSB.

*H*0 4: There are no gender identity differences in perception of stigma in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS. I conducted a one-way ANOVA testing for differences between groups based on gender identity on measures of perception of stigma. The results indicated that there were

violations of Levene's test of homogeneity of variances for MHTS (See Table 17). As such, I elected to report the Welch statistic when reporting results.

Table 17

Levene's Test on Gender Identity and Perception of Stigma

Measure	Levene's Statistic	*df*	*p*
Stigma 5	9.377	4, 34389	0.000*
Stigma 6	17.958	4, 34370	0.000*

* – Denotes violation of Levene's Test of Homogeneity of Variances

The results of the ANOVAs indicated that there were some directional differences between groups based on gender identity on measures of perception of stigma (See Table 18). The mean score for gender identity and perception of stigma for males 17.00, females 17.15, trans woman/trans man 16.05, genderqueer 16.85, and self-identify 1670. Females tended to be the highest in directional difference 17.15 and trans woman/trans man tended to be the lowest in directional difference 16.05. Females tended to be the highest and trans woman/trans man tended to be the lowest between groups based on gender identity on measures of perception of stigma (a) *I would willingly accept a person who has received mental health treatment as a close friend*, (b) *I would be reluctant to date a man/woman who has received mental health treatment* (c) *I believe that a person who has received mental health treatment is just as trustworthy as the average citizen*, and (d) *I would think less of a person who has received mental health treatment and gay reported less*. However, a closer examination of the results indicated that the effect size associated with some directional differences is weak. Instances where there are some directional differences and no effect sizes indicate that the directional differences are continuous being driven by a large sample size, not measurable differences that can be

attributed to group differences. Indeed, an examination of the means plot (See Figure 4) indicated that the directional differences between the groups are nominal 16.00 to 17.20.

Table 18

ANOVA Results on Gender Identity by Perception of Stigma

Measure	*F*	*df*	*p*	partial η^2
Stigma 5	14.563	4, 534	0.000	0.002
Stigma 6	29.222	4, 531	0.000	0.004

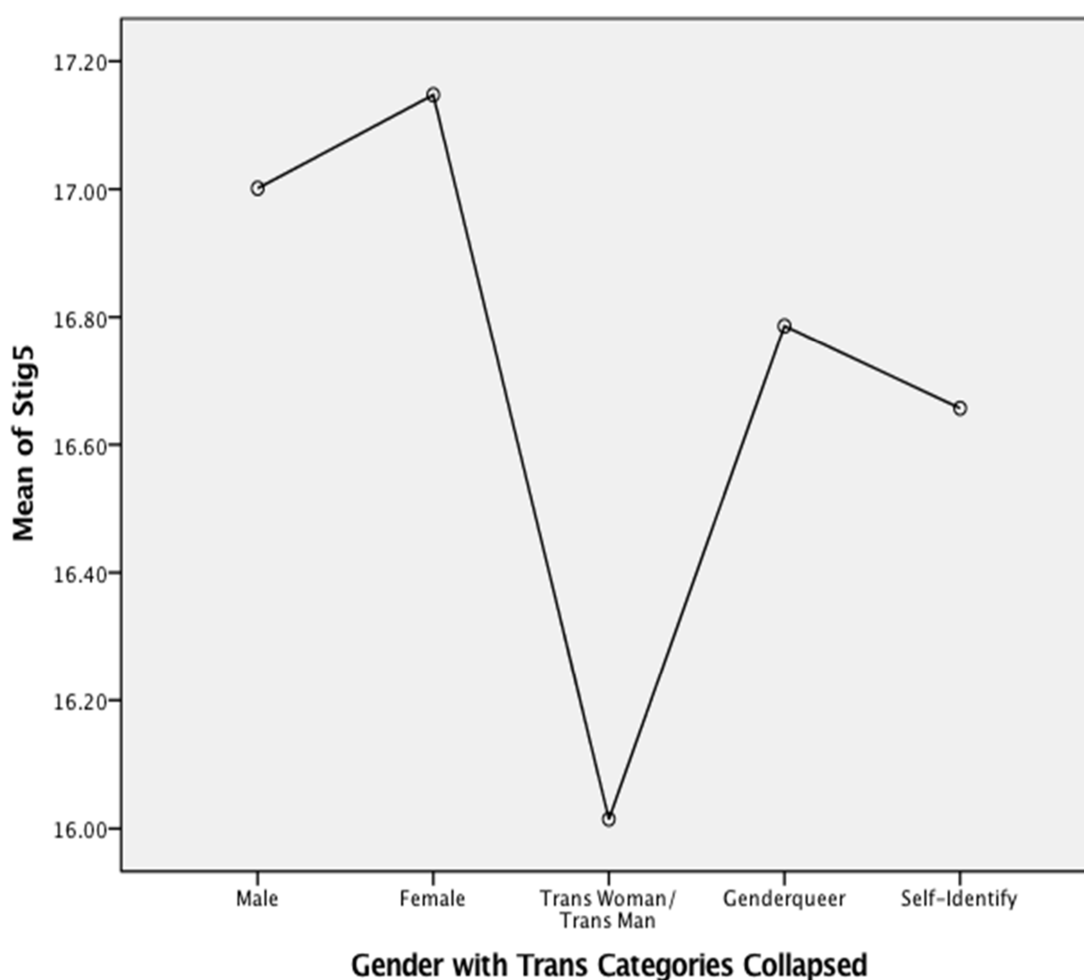

Figure 4. Means plot for gender identity and perception of stigma.

$H_0$5: There are no gender identity differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD as

self-reported in the 2016-2017 HMS. I conducted a one-way ANOVA testing for differences between groups based on gender identity on measures of MHTS. The results indicated that there were violations of Levene's test of homogeneity of variances for MHTS (See Table 19). As such, I elected to report the Welch statistic when reporting results.

Table 19

Levene's Test for Gender Identity and Perception of MHTS

Measure	Levene's Statistic	*df*	*p*
MHTS	5.182	4, 11945	0.000*

Note. MHTS = Mental Health Treatment Services. * – Denotes violation of Levene's Test of Homogeneity of Variances

The results of the ANOVAs indicated that there were some directional differences between groups based on gender identity on measures of MHTS (See Table 20). The mean score for gender identity and perception of stigma for males 21.95, females 22.45, trans woman/trans man 21.20, genderqueer 22.10, and self-identify 21.65. Females tended to be the highest in directional difference 22.45 and trans woman/trans man tended to be the lowest in directional difference 21.20. Females tended to be the highest and trans woman/trans man tended to be the lowest between groups based on gender identity on measures of MHTS in the past 12 months, have you received counseling or support for your mental or emotional health from (a) family member (b) religious contact (c) support group (d) other clinical sources (c) informal support. However, a closer examination of the results indicated that the effect size associated with some directional difference is weak. Instances where there are some directional differences and no effect

sizes indicate that the directional differences are being driven by a large sample size, not measurable differences that can be attributed to group differences. Indeed, an examination of the means plot (See Figure 5) indicated that the directional differences between the groups are nominal 21.10 to 22.25.

Table 20

ANOVA Results on Gender Identity by MHTS

Measure	*F*	*df*	*p*	partial η^2
MHTS	13.782	4, 386	0.000	0.005

Note. MHTS = Mental Health Treatment Services

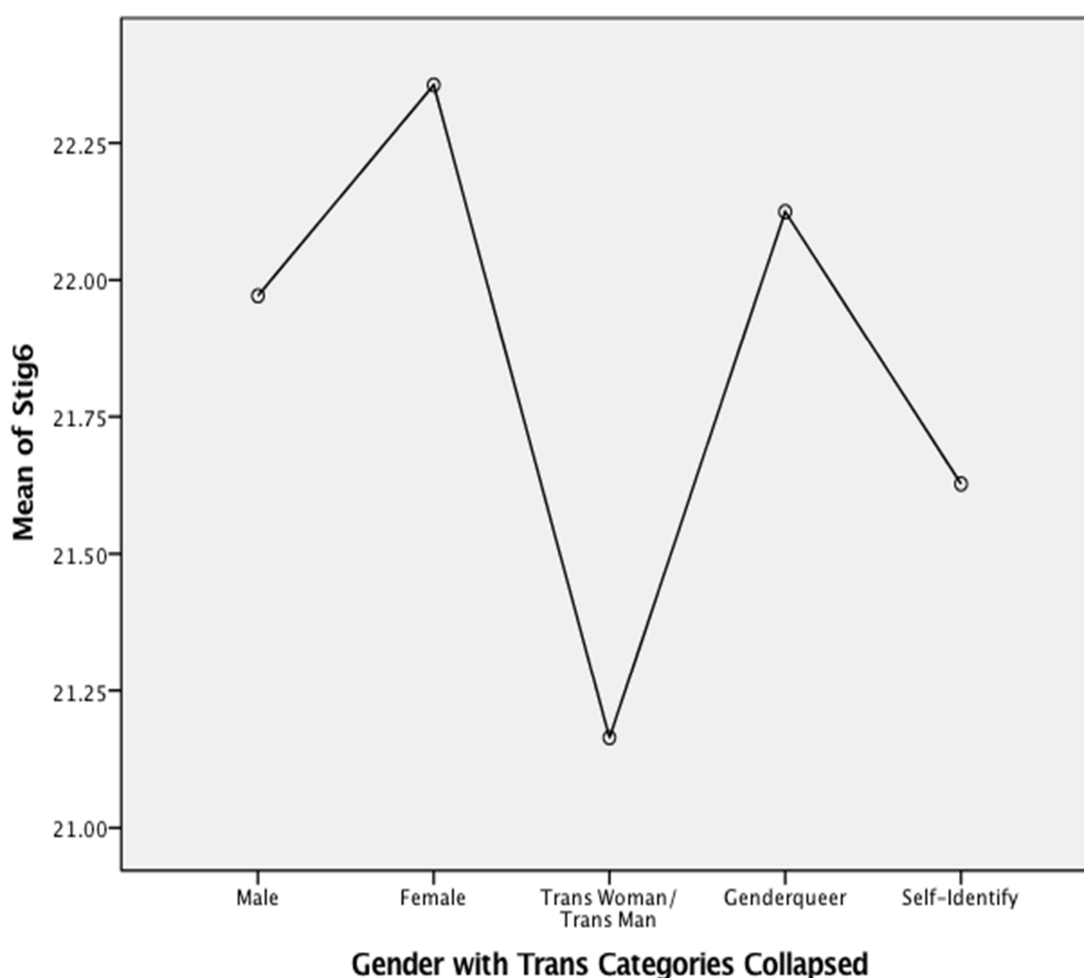

Figure 5. Means plot for gender identity and MHTS.

*H_0*6: There are gender identity differences in help-seeking behaviors in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS. I conducted a one-way ANOVA testing for differences between groups based on gender identity on measures of HSB. The results indicated that there were violations of Levene's test of homogeneity of variances for MHTS (See Table 21). As such, the researcher elected to report the Welch statistic when reporting results.

Table 21

Levene's Test for Gender Identity and HSB

Measure	Levene's statistic	*df*	*p*
HSB	14.399	4, 30579	0.000*

Note. HSB = Help-Seeking Behaviors. *Denotes violation of Levene's Test of Homogeneity of Variances

The results of the ANOVAs indicated that there were some directional differences between groups based on gender identity on measures of HSB (See Table 22). The mean score for gender identity and perception of stigma for males 3.80, females 4.01, trans woman/trans man 4.14, genderqueer 4.15, and self-identify 4.37. Self-identify tended to be the highest in directional difference 4.37 and males tended to be the lowest in directional difference 3.80. Self-identify tended to be the highest in directional difference and males tended to be the lowest in directional difference between groups based on gender identity on measures of HSB in the past 12 months, have you received counseling or support for your mental or emotional health from (a) family member (b) religious contact (c) support group (d) other clinical sources (c) informal support. However, a

closer examination of the results indicated that the effect size associated with some directional difference is weak. Instances where there are some directional differences and no effect sizes indicate that the significant differences are being driven by a large sample size, not measurable differences that can be attributed to group differences. Indeed, an examination of the means plot (See Figure 6) indicated that the directional differences between the groups are nominal 3.80 to 4.40.

Table 22

ANOVA Results on Gender Identity by MHTS

Measure	*F*	*df*	*p*	partial η^2
MHTS	47.035	4, 539	0.000	0.006

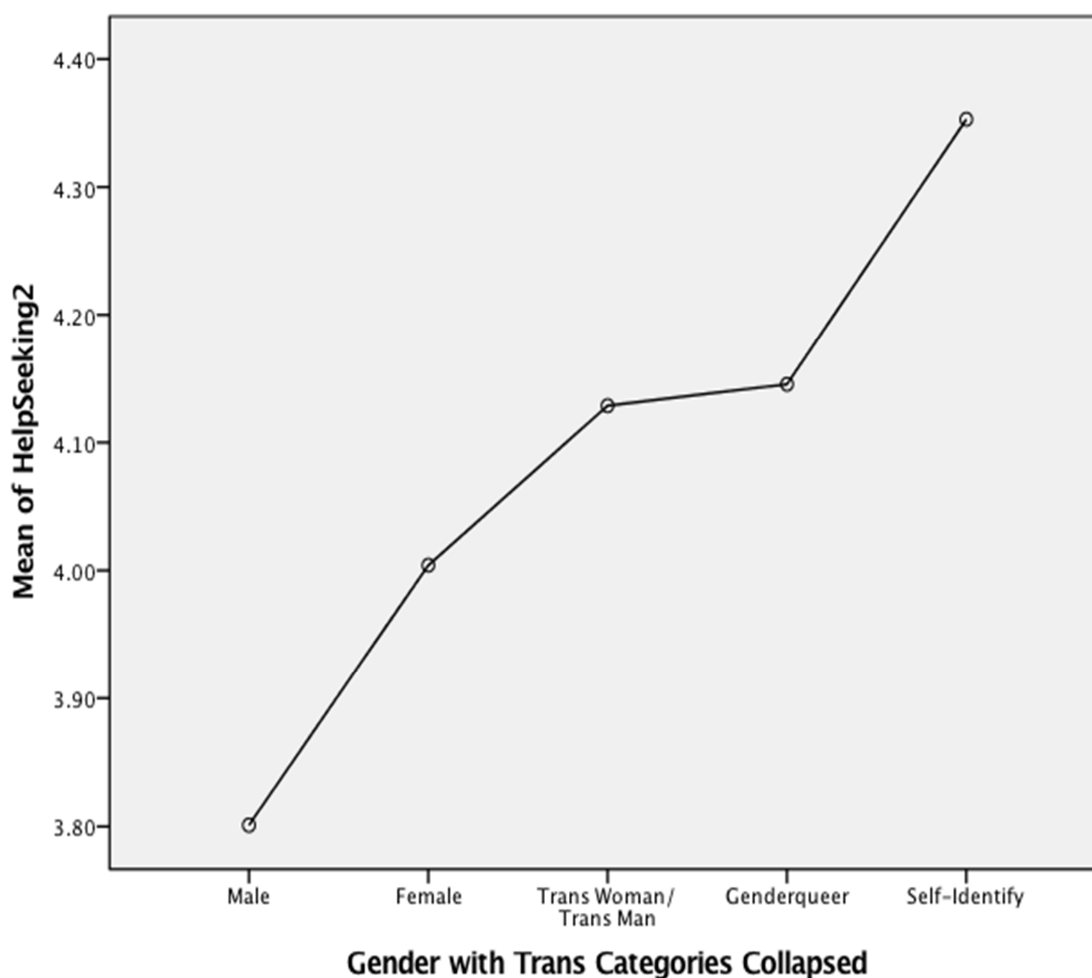

Figure 6. Means plot for gender identity and HSB.

H_a7: There are biological sex differences in the perception of stigma, help-seeking behaviors, and use of services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS.

H_a7A: There are gender identity differences in the perception of stigma, help-seeking behaviors, and use of services in a sample of college students diagnosed with PTSD as self-reported in the 2016-2017 HMS. I conducted a Multivariate Analysis of Variance (MANOVA) to assess for differences between groups based on sexual

orientation on a linear combination of the dependent measures of perception of stigma, help–seeking behaviors, and uses of services. The data indicated there were some issues regarding Levene's Test of Equality of Error Covariance (See Table 23). Specifically, the data indicated a violation of Levene's assumption for health – seeking behaviors.

Table 23

Levene's Test for Sexual Orientation by Measure

Measure	Levene's Statistic	*df*	*p*
Stigma 5	4.158	5, 7387	0.001*
MHTS	1.906	5, 7387	0.403
HSB	2.901	5, 7387	0.259

Note. MHTS = Mental Health Treatment Services. HSB = Help-Seeking Behaviors * – Denotes violation of Levene's Test of Homogeneity of Variances

The results of the MANOVA indicated some directional differences between groups based on sexual orientation on a linear combination of the dependent variable of perception of stigma, MHTS, and HSB: $\lambda = 0.990$, $F(15, 20387) = 4.843$, $p < .001$. While significant, the effect was weak, $\eta^2 = 0.003$. When the results for the dependent variables were considered separately, there were some directional differences between groups based on sexual orientation for some of the measures within the analysis (See Table 24). Again, when the results were considered individually the tests indicated some directional differences with no effect sizes. These results, in line with previous results, suggests that the directional differences of these results were likely driven by the size of the sample and not measurable differences between the groups.

Table 24

Significant Differences for Dependent Measures within the MANOVA

	F	*df*	*p*	partial η^2
Stigma 5	1.441	5, 7387	0.206	–
MHTS	8.975	5, 7387	0.000	0.006
HSB	4.602	5, 7387	0.000	0.003

Note. MHTS = Mental Health Treatment Services. HSB = Help-Seeking Behaviors.

Summary

In conclusion each of the analyses run as a part of this research project indicated some directional differences between groups based on gender identity and sexual orientation across each of the dependent measures. However, the effect sizes also indicated nearly weak sizes of effect for some of the directional differences. The directional differences in the results within the tests are a result of an abnormally large sample size, not measurable or repeatable directional differences between the groups; however, the lack of effect size suggest that these directional differences were continuous not being driven by group differences. The results indicated that there were violations of Levene's test of homogeneity of variances for gender and sexual orientation measured on measures of perception of stigma in HSB and MHTS. As such, I elected to report the Welch statistic when reporting results.

Chapter 5 is based on discussion and summary of the results of study and presents conclusions concerning the key findings and interpretations in relation to the peer reviewed literature in chapter 2. In this Chapter 5, implications of these finding, and the limitations of the study and implications for social change are discussed as well as the

conclusion. In addition to recommendations, suggestions for the continued and future research as appropriate in this area are discussed.

Chapter 5: Discussion, Recommendations, and Conclusion

This chapter includes an interpretation of the results from the study, limitations of the study, recommendations for future research studies, and conclusions. The purpose of this study was to analyze the relationship between gender, biological sex at birth, and gender identity differences as predictors of attitudes towards perceived stigma in HSB and use of MHTS. The conceptual frameworks for this study consisted of social learning theory (Bandura, 1986), gender identity theory (Perry & Pauletti 2011; Stets & Burke 2000; Tobin et al. 2010; Wood & Eagly 2009), and stigma/identity threat theory (Crocker & Major, 1989). For this study, there were seven RQs that guided this study. Findings are discussed below.

Interpretation of the Findings

The data from this study showed that there were some directional differences between gender, biological sex at birth, and sexual orientation on measures of perception of stigma in use of MHTS and HSB from students in 26 colleges and universities in the United States. The results for the RQs indicated some significant directional differences between groups based on sexual orientation on measures on measures of HSB and use of MHTS in the perception of stigma. The directional differences in the results in the tests are a result of an abnormally large sample size, not measurable or repeatable differences between the groups. The lack of effect size suggests that these directional differences were continuous and not being driven by group differences. The results indicated that there were violations of Levene’s test of homogeneity of variances for gender and sexual

orientation on measures of perception of stigma in HSB and use of MHTS. As such, I elected to report the Welch statistic when reporting results.

Research Question 1

RQ1 was as follows: Are there sex-based differences in perception of stigma in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

The results for RQ1 indicate there were some directional differences between groups. Heterosexuals tended to have the highest and gays tended to have the lowest perception of stigma between groups based on sexual orientation on measures of perception of stigma: (a) I would willingly accept a person who has received mental health treatment as a close friend, (b) I would be reluctant to date a man/woman who has received mental health treatment, (c) I believe that a person who has received mental health treatment is just as trustworthy as the average citizen, and (d) I would think less of a person who has received mental health treatment. Gays reported less. The stigma against psychological issues and the fear of being considered insane hinders obtaining help (Kushner & Sher, 1989; Sirey et al., 2001; Jackson, Judd, Komiti, & Wrigley, 2005). Around 90% of individuals surveyed report a fear of being called insane that kept them from utilizing psychological services (Barbaro & Nelson, 1985). Society tends to have a negative conceptualization of individuals who experience mental troubles, which adds to social detachment, misery, and difficulties in social life and employment (Crisp et al., 2000). Outsiders see individuals participating in treatment for psychological problems as unstable, compared to persons who are not in treatment (Ben-Porath, 2002). Therefore, stigma connected to seeking professional psychological help is a significant barrier to

entering treatment (Dovidio & Sibicky, 1986) exceeding the individual's coping resources (Crocker & Major, 1989). Desrochers et al. (2016) suggest that gender use of treatment may prevent woman from initiating the care they need. Research by Sijbrandij et al. (2007) asserted that males might have a higher tendency to drop out of a treatment program than females. Although, there were some directional differences between the groups, the lack of effect size suggests that these differences were continuous and not being driven by group differences.

Past researchers suggest that demographic variables can be barriers to seeking help in the college population. Furthermore, additional evidence reveals the higher the educational levels and family wages of college students the impact of seeking help is greater (Tijhuiset al., 1990). Research suggested that some demographic variables work as barriers to seeking help for issues related to mental health (Bilican, 2013). For example, being male and older, low SES, and low educational status seemed to hurt psychological help-seeking. Females were more inclined to seek psychological help than males and were more likely to process emotions (Ciarrochi et al., 2003; Fisher & Farina, 1995; Kuhl et al., 1997). High SES students may tend to express a desire for help with mental health disorders and sex-related issues, while low SES students tend to want help with a broad range of physical health concerns (Walker et al., 1982). Individuals who seek more psychological help are younger, have higher education levels, and have a higher family wage (Tijhuis et al., 1990). When substance abuse is the behavioral issue, for those with higher SES, the younger adults pick parents over school experts as preferred sources of support (Benson, 1990).

Research Question 2

RQ2 was as follows: Are there sex-based differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

The results for RQ2 indicate there were some sex-based directional differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS. Lesbians tended to be the highest ______, and questioning tended to be the lowest between groups based on sexual orientation on measures of use of MHTS in the past 12 months or whether they had received counseling or support for their mental or emotional health from (a) a family member, (b) a religious contact, (c) a support group, (c) other clinical sources, or (d) informal support. According to Desrochers et al. (2016), gender use of treatment may prevent females from initiating the care they need. Additionally, there are inconsistencies in findings due to the differences in trauma response between individuals when considering the potential influence of gender (Desrochers et al., 2016). Desrochers et al. (2016) reported that before starting a cognitive-behavioral therapy treatment, 66 participants verbally recounted their traumatic event during a follow-up meeting after treatment, and 48 members provided a trauma narrative at the end. Linear regression examinations revealed that none of the pretreatment characteristics predicted treatment adequacy; furthermore, the length of the trauma narrative was the main pretreatment characteristic that correlated with pretreatment PTSD symptoms (Desrochers et al., 2016). The authors proposed that more severe symptoms related to shorter narratives,

leading to a significant gender difference in narrative length, as male stories were shorter than females (Desrochers et al., 2016).

Research Question 3

RQ3 was as follows: Are there sex-based differences in help-seeking behaviors in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

The results for RQ3 indicate there were some sex-based directional differences among college students diagnosed with PTSD self-reporting in the 2016-2017 HMS. Bisexuals tended to be the highest score, and questioning tended to be the lowest between groups based on sexual orientation on measures of HSB in the past 12 months, asking if they had received counseling or support for their mental or emotional health from (a) a family member, (b) a religious contact, (c) a support group, (d) other clinical sources, or (c) informal support. According to previous research, some demographic variables work as barriers to seeking help for issues related to mental health (Bilican, 2013) For example, being male and older, low SES, and low educational status seemed to hurt psychological help-seeking. Females were more inclined to seek psychological help than males and were more likely to process emotions (Ciarrochi et al., 2003; Fisher & Farina, 1995; Kuhl et al., 1997). Although, there were some directional differences between groups, the lack of effect size suggests that these differences were continuous and not being driven by group differences.

Research Question 4

RQ4 was as follows: Are there gender identity differences in perception of stigma in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

The results for RQ4 indicate there were some gender identity directional differences in the perception of stigma in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS. Females tended to be the highest score, and trans woman/trans man tended to be the lowest between groups based on gender identity on measures of perception of stigma:

- I would willingly accept a person who has received mental health treatment as a close friend.
- I would be reluctant to date a man/woman who has received mental health treatment.
- I believe that a person who has received mental health treatment is just as trustworthy as the average citizen.
- I would think less of a person who has received mental health treatment and gay reported less.

According to research, society tends to have a negative conception of individuals who experience mental troubles, which adds to social detachment, misery, and difficulties in social life and employment (Crisp et al., 2000). People who do not experience psychological problems see individuals participating in treatment for psychological problems as unstable compared to persons who are not in treatment (Ben-Porath, 2002).

Therefore, the stigma associated with seeking professional psychological help is a significant barrier to entering treatment (Dovidio & Sibicky, 1986). The stigma against psychological issues and the fear of being considered insane hinders obtaining help (Kushner & Sher, 1989; Sirey et al., 2001; Jackson et al., 2005). Around 90% of individuals surveyed report a fear of being called insane that keeps them from utilizing psychological services (Barbaro & Nelson, 1985). Although there were some directional differences between the groups, the lack of effect size suggests that these differences were continuous not being driven by group differences.

Research Question 5

RQ5 was as follows: Are there gender identity differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

The results for RQ5 indicate there were some gender identity directional differences in the use of mental health counseling or therapy services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS. Females tended to be the highest score, and trans woman/trans man tended to be the lowest between groups based on gender identity on measures of MHTS in the past 12 months, askign if they had received counseling or support for their mental or emotional health from (a) a family member, (b) a religious contact, (c) a support group, (d) other clinical sources, ir (c) informal support. Previous research indicated that demographic variables such as gender, sexual orientation, age, marital status, and living circumstances may impact treatment (Diener & Ryan, 2009; Han et al., 2015; Keyes & Waterman, 2003;

Roothman et al., 2003; Temane & Wissing, 2006). For college students, demographic characteristics may impact the use of services (Schnider & Elhai, 2007). The literature identified that the help-seeking attitudes and behaviors of students transiting to college negatively affected seeking the help of professionals (Galovski & Lyons, 2004). Although, there were some directional differences between the groups, the lack of effect size suggest that these differences were continuous and not being driven by group differences.

Research Question 6

RQ6 was as follows: Are there gender identity differences in help-seeking behaviors in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

The results for RQ6 there were some gender identity directional differences in help-seeking behaviors in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS. Self-identify tended to be the highest in directional difference and males tended to be the lowest in directional difference between groups based on gender identity on measures of HSB in the past 12 months, have you received counseling or support for your mental or emotional health from (a) family member (b) religious contact (c) support group (d) other clinical sources (c) informal support. Currently, two reviews have inspected the high use of treatment by clients with gender identity issues (Hundt et al., 2014), and neither particularly examines above average participation in the treatment of PTSD treatment; these reviews recommend a relationship between the seriousness of symptoms and the length of time to treat. Research conducted

by Bender et al. (2001) explored the use of treatments including groups, individual, and family in clients with identity issues contrasted with depressed clients; clients with gender identity issues took part in considerably more treatment than customers who were depressed, spending around 50 months in individual treatment throughout their lives. These patients also had higher mental disorder difficulties than patients who used less mental health care; however, these patients had less mental disorder pain than high users of emergency psychiatric care and physical care (Pezzimenti et al., 2006). Although, there were some directional differences between the groups the lack of effect size suggest that these differences were continuous not being driven by group differences.

Research Question 7

RQ7 was as follows**:** Are there biological sex differences in the perception of stigma, help-seeking behaviors, and use of services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

The results for RQ7 there were some gender identity directional differences in perception of stigma, help-seeking behaviors, use of services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS. The results were in the direction of previous research that stigma against psychological issues and the fear of being considered insane hinders against gaining help (Kushner & Sher, 1989; Sirey et al., 2001; Jackson, Judd, Komiti, & Wrigley, 2005). Around 90% of individuals surveyed report a fear of being called insane that keeps them from utilizing psychological services (Barbaro & Nelson, 1985). Society tends to have a negative conceptualization of individuals who experience mental troubles, which adds to social detachment, misery,

and difficulties in social life and employment (Crisp et al., 2000). Outsiders see individuals participating in treatment for psychological problems as unstable, compared to persons who are not in treatment (Ben-Porath, 2002).

According to Desrochers et al. (2016) gender use of treatment may prevent females from initiating the care they need. Additionally, there are inconsistencies in findings due to the differences in trauma response between individuals when considering the potential influence of gender (Desrochers et al., 2016). Research conducted by Desrochers et al. (2016) before starting a cognitive-behavioral therapy treatment, 66 participants verbally recounted their traumatic event during a follow-up meeting after treatment, and 48 members provided a trauma narrative at the end. Linear regression examinations revealed that none of the pretreatment characteristics predicted treatment adequacy; furthermore, the length of the trauma narrative was the main pretreatment characteristic that correlated with pretreatment PTSD symptoms (Desrochers et al., 2016). The authors propose that more severe symptoms relate to shorter narratives, leading to a significant gender difference in narrative length, as male stories were shorter than females (Desrochers et al., 2016).

According to previous research some demographic variables work as barriers to seeking help for issues related to mental health (Bilican, 2013); for example, being male and older, low socioeconomic status (SES), and low educational status seem to hurt psychological help-seeking. Females are more inclined to seek psychological help than males and are more likely to process emotions (Ciarrochi et al., 2003; Fisher & Farina, 1995; Kuhl et al., 1997). Although, there were some directional differences between

groups the lack of effect size suggest that these differences were continuous not being driven by group differences.

Research Question 7_A

$RQ7_A$ was as follows: Are there gender identity differences in the perception of stigma, help-seeking behaviors, and use of services in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS?

The results for RQ7A there were some gender identity directional differences in the perception of stigma, use of services, and help-seeking behaviors in a sample of college students diagnosed with PTSD self-reporting in the 2016-2017 HMS. The results were in the direction of research on how society tends to have a negative conception of individuals who experience mental troubles, which adds to social detachment, misery, and difficulties in social life and employment (Crisp et al., 2000). People who do not experience psychological problems see individuals participating in treatment for psychological problems as unstable, compared to persons who are not in treatment (Ben-Porath, 2002). Therefore, the stigma associated with seeking professional psychological help is a significant barrier to entering treatment (Dovidio & Sibicky, 1986). The stigma against psychological issues and the fear of being considered insane hinders against gaining help (Kushner & Sher, 1989; Sirey et al., 2001; Jackson, Judd, Komiti, & Wrigley, 2005). Around 90% of individuals surveyed report a fear of being called insane that keeps them from utilizing psychological services (Barbaro & Nelson, 1985). Although, there were some directional differences between the groups the lack of effect size suggest that these differences were continuous not being driven by group differences.

Furthermore, the results were in the direction of previous research regarding demographic variables, such as gender, sexual orientation, age, marital status, and living circumstances, may impact treatment (Diener & Ryan, 2009; Han et al., 2015; Keyes & Waterman, 2003; Roothman et al., 2003; Temane & Wissing, 2006). For college students, the use of services may impact demographic characteristics (Schnider & Elhai, 2007). The literature identifies that the help-seeking attitudes and behaviors of students transiting to college, negatively affect seeking the help of professionals (Galovski & Lyons, 2004). Although, there were some directional differences between the groups the lack of effect size suggest that these differences were continuous not being driven by group differences.

Also, the results were in the direction of two reviews that have inspected the high use of treatment by clients with gender identity issues (Hundt et al., 2014), and neither particularly examines above average participation in the treatment of PTSD treatment; these reviews recommend a relationship between the seriousness of symptoms and the length of time to treat. Research conducted by Bender et al. (2001) explored the use of treatments including groups, individual, and family in clients with identity issues contrasted with depressed clients; clients with gender identity issues took part in considerably more treatment than customers who were depressed, spending around 50 months in individual treatment throughout their lives. These patients also had higher mental disorder difficulties than patients who used less mental health care; however, these patients had less mental disorder pain than high users of emergency psychiatric care and physical care (Pezzimenti et al., 2006). Although, there were some directional

differences between the groups the lack of effect size suggest that these differences were continuous not being driven by group differences.

Limitations of the Study

A limitation of this research study was that the participants may not be representative of stigma, help-seeking behaviors, and use of services among individuals experiencing symptoms of PTSD due to use of higher education college student only. Another limitation of this study is the utilization of the 2016-2017 HMS because it is a self-assessed online study. Lastly, a limitation of this study is the self-reported diagnosis of PTSD by potential participants.

Recommendations for Future Research

Findings suggest that offering students personalized feedback and the option of online counseling, using motivational interviewing principles has a positive impact on students’ readiness to consider and engage in mental health treatment (King et al., 2015). Further research is warranted to determine the robustness of this effect, the mechanism by which improved readiness and treatment linkage occurs, and the long-term impact on student mental health outcomes (King et al., 2015). Based on this study results I recommend researching individuals who have being diagnosed with PTSD by a professional as a separate group and the target population. Another recommendation includes the face to face administering of survey questions for gathering data from participants from the general population. Also, I recommend for further study the average participation in treatment of PTSD and a relationship between the seriousness of symptoms and the length of time to treat. Furthermore, I recommend examining how

different types of internalized or public stigma may relate to help-seeking hindrances to wanting to manage problems oneself and the little-perceived need for treatment.

Implications for Social Change

Identifying whether an association exist between gender identity differences as predictors of attitudes and behaviors towards the perceived perception of stigma, help-seeking behaviors, and use of mental health services for the improvement providing better services and increased quality of life for those experiencing symptoms of PTSD by increasing the understanding of gender identity differences as predictors of attitudes towards use of mental health services. The results from this study may provide information to clinicians and therapists on how to identify contemporary social-cultural issues important to the college students, which include daily activities, educational attainment, and dysfunctional beliefs. Thoughts of feeling inadequate, as a failure, mentally distorted and hopeless associated with misunderstanding, procrastination, self-blame, and inexperience, so future interventions can help accommodate men and women experiencing PTSD with mental health treatment (Rickwood & Braithwaite, 1994).

Conclusion

The motivation of this research study was concern regarding gender biological sex at birth and gender identity differences as predictors of attitudes and behaviors towards the perceived perception of stigma in help-seeking behaviors and use of mental health treatment services. Approximately 5,000 participants from 26 universities and colleges across the United States. The HMS collected this data in 2016-2017 using the Patient Health PHQ-9 from students of higher education in 26 colleges and universities

across the United States. In this study, a significant relationship was found between gender and gender identity differences as predictors of attitudes and behaviors towards the perceived perception of stigma in help-seeking behaviors and use of mental health treatment services. However, the effect sizes each also indicated nearly weak sizes of effect for each of the significant differences. The significant results within the tests are a result of an abnormally large sample size, not measurable or repeatable differences between the groups. There were some directional differences between the groups; however, the lack of effect size suggest that these differences were continuous not being driven by group differences. The results indicated that there were violations of Levene's test of homogeneity of variances for gender and sexual orientation measured on measures of perception of stigma in HSB and MHTS. As such, I elected to report the Welch statistic when reporting results.

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Appendix A: The Healthy Minds Study: Questionnaire Modules and Survey Endings

MENU OF MODULES: Number of Items

Standard Modules1

(1) Demographics 26-32

(2) Mental Health Status 28-60

(3) Mental Health Service Utilization/Help-Seeking 15-47

Elective Modules 2

(4) Substance Use 22-24

(5) Sleep (half module) 12-13

(6) Eating and Body Image 25-28

(7) Sexual Assault 26-44

(8) Overall Health 21-40

(9) Knowledge and Attitudes about Mental Health and Mental Health Services 25-28

(10) Upstander/Bystander Behaviors (half module) 8-12

(11) Campus Climate and Culture 16

(12) Competition 12

(13) Resilience and Coping 13

(14) Persistence and Retention 26-28

(15) Financial Stress 10

Notes: 1Standard modules are fielded at all participating institutions. 2Elective modules are chosen by participating institution from the options listed above. To ensure that the

overall survey (standard modules+elective modules) remains reasonable in length, participating institutions typically choose 2 elective modules (2 half modules can be combined to account for 1 module). The number of items per module is determined by 2 factors: (1) skip logic embedded within the survey (i.e., some measures are assessed only for students with certain responses to survey items), and (2) which elective modules are selected by the participating institution. In terms of the order of modules presented to students, the 'Demographics' module is always first, followed by the 'Mental Health Status' module; the order of the remaining modules varies based on which elective modules are selected.

ABOUT THIS DOCUMENT:

Contents:

This document outlines all survey items included in HMS, beginning with the standard modules ('Demographics', 'Mental Health Status', and 'Mental Health Service Utilization/Help-Seeking') and then the elective modules. The final pages of the document include the survey endings (shown to student participants upon completing the survey).

Each module is presented within a table. Above each table is the module name (in all capital letters, bolded and underlined). Directly beneath the module name is the text shown to student participants at the beginning of that module. For example, students beginning the 'Demographics' module see the following text above the first question in that module: "Basic Information: *This section will ask you to provide basic information about yourself*". Information in the column 'Section' outlines organization within the module and is not visible to students within the survey.

Color Coding:

As noted above, some items are based on embedded skip logic within the survey (i.e., some measures are assessed only for students with certain responses to survey items). For example, only students who respond "No" to the question "Are you a United States citizen (or permanent resident)?" are asked the follow-up question "What is your country of citizenship (passport country)?". This follow-up question is shown in gray, indicating that the item is based on embedded skip logic.

HMS is a web-based survey. As such, there are numerous coding and programming decisions (*the vast majority of which are rather boring so we'll spare you*). A few are important: for example, many items allow student respondents to "Select all that apply". In some cases, one of the response options is 'mutually exclusive' meaning that a student respondent who selects that response option cannot select any of the other options (e.g., the response category "None" is mutually exclusive for the item "What activities do you currently participate in at your school?"). Programming notes are included in blue within the module tables.

Finally, certain items within the standard modules include a note in red (in the 'Citation/Notes' column) indicating that the item is included only if the elective module on that topic is not selected. In other words, a small number of items about important topics are included even if the elective module on that topic is not selected. This ensures that institutions have basic information about important topics that are not selected for in-depth assessment through elective modules. For example, if an institution does not select the 'Sleep' half module, a small number of items about sleep habits are included in the

'Mental Health Status' module. If an institution does select the 'Sleep' half module, the items about sleep are not included in the 'Mental Health Status' module (because sleep habits are being assessed separately in more detail through the 'Sleep' half module).

To review:

ITEM BASED ON EMBEDDED SKIP LOGIC

LOGISTIC/PROGRAMMING NOTES

ITEM INCLUDED IF ELECTIVE MODULE ON THAT TOPIC NOT SELECTED

STANDARD MODULES:

(1) DEMOGRAPHICS

Basic Information

This section will ask you to provide basic information about yourself. Remember that your responses are confidential and you may choose to skip questions or stop responding at any point.

SECTION ITEM RESPONSE CATEGORIES CITATION/NOTES

Age

How old are you?

(You must be 18 years or older to complete this survey.)

1=______ years old

Sex/gender/sexuality

What was your sex at birth?

1=Female

2=Male

3=Intersex

Based on guidance from the Trevor Project

SDS90

What is your gender identity?

1=Male

2=Female

3=Trans male/Trans man

4=Trans female/Trans woman

5=Genderqueer/Gender non-conforming

6=Self-identify (please specify)

Based on guidance from the Trevor Project

SDS88

SDS89: Self-identify gender identity (free response)

How would you describe your sexual orientation?

1=Heterosexual

2=Lesbian

3=Gay

4=Bisexual

5=Questioning

6=Self-identify (please specify)

SDS91

SDS92: Self-identify sexual orientation (Free response)

How would you characterize your current relationship status?

1=Single

2=In a relationship

3=Married, in a domestic partnership, or engaged

4=Divorced or separated

5=Widowed

6=Other (please specify)

Race/ethnicity

What is your race/ethnicity?

(Select all that apply)

1=African American / Black

2=American Indian or Alaskan Native

3=Asian American / Asian

4=Hispanic / Latino/a

5=Native Hawaiian or Pacific Islander

6=Middle Eastern, Arab, or Arab American

7=White

8=Self-identify (please specify)

SDS95

SDS29: Self-identify race/ethnicity (Free response)

Citizenship

Are you an international student?

1=Yes

0=No

Adapt for non-U.S. colleges and universities

SDS32

What is your country of origin?

1=Afghanistan

2=Albania

3=Angola

4=Antigua and Barbuda

5=Argentina

6=Armenia

7=Australia

8=Austria

9=Azerbaijan

10=Bahamas

11=Bahrain

12=Bangladesh

13=Barbados

14=Belarus

Instructions for this item: “(Use command or control key to select more than one country.)”

Adapt for non-U.S. colleges and universities

SDS31

SECTION ITEM RESPONSE CATEGORIES CITATION/NOTES

or stepparents?

Parent 2

1=Mother or stepmother

2=Father or stepfather

3=Other

This parent’s education:

1=8th grade or lower

2=Between 9th and 12th grade (but no high school degree)

3=High school degree

4=Some college (but no college degree)

5=Associate’s degree

6=Bachelor’s degree

7=Graduate degree

8=Don’t know

Religiosity

How important is religion in your life?

1=Very Important

2=Important

3=Neutral

4=Unimportant

5=Very unimportant

SDS36

What is your religious affiliation?

(Select all that apply)

1=Agnostic

2=Atheist

3=Buddhist

4=Catholic

5=Christian

6=Hindu

7=Jewish

8=Muslim

9=No preference [mutually exclusive]

10=Self-identify (please specify)

SDS97

Academic information

In what degree program are you currently enrolled?

(Select all that apply)

1=Associate's

2=Bachelor's

3=Master's

4=JD

5=MD

6=PhD (or equivalent doctoral program)

7=Other (please specify)

8=Non-degree student [mutually exclusive]

SDS39

Did you transfer from another campus/institution

to this school?

1=Yes, I transferred from a community or junior college.

2=Yes, I transferred from a 4-year college or university.

3=No

SDS46

What year are you in your current degree program?

1=1st year

2=2nd year

3=3rd year

4=4th year

5=5th year

6=6th year

7=7th+ year

Display if "Non-degree student" not selected for "In what degree program are you currently enrolled?"

What is your enrollment status?

1=Full-time student

2=Part-time student

3=Other (please specify)

15=Belgium

16=Belize

17=Bolivia

18=Bosnia and Herzegovina

19=Brazil

20=Brunei

21=Bulgaria

22=Burma

23=Burundi

24=Cambodia

25=Cameroon

26=Canada

27=Central African Republic

28=Chile

29=China

30=Colombia

31=Congo, The Democratic Republic

32=Costa Rica

33=Cote d'Ivoire

34=Croatia

35=Cyprus

36=Czech Republic

37=Denmark

38=Dominica

39=Dominican Republic

40=Ecuador

41=Egypt

42=El Salvador

43=Estonia

44=Ethiopia

45=Finland

46=France

47=Gabon

48=Gambia

49=Gaza Strip

50=Georgia

51=Germany

52=Ghana

53=Greece

54=Guatemala

55=Guinea

56=Guyana

57=Haiti

58=Honduras

59=Hungary

60=Iceland

61=India

62=Indonesia

63=Iran

64=Iraq

65=Ireland

66=Israel

67=Italy

68=Jamaica

69=Japan

70=Jordan

71=Kazakhstan

72=Kenya

73=North Korea

74=South Korea

151=Kosovo

75=Kuwait

76=Kyrgyzstan

77=Laos

78=Latvia

79=Lebanon

80=Lithuania

81=Luxembourg

82=Macedonia

83=Madagascar

84=Malawi

85=Malaysia

86=Mali

87=Mauritania

88=Mauritius

89=Mexico

90=Moldova

91=Mongolia

92=Morocco

93=Mozambique

94=Namibia

95=Nepal

96=Netherlands

97=New Zealand

98=Nicaragua

99=Nigeria

100=Norway

101=Oman

102=Pakistan

103=Panama

104=Paraguay

105=Peru

106=Philippines

107=Poland

108=Portugal

109=Qatar

110=Romania

111=Russia

112=Saint Kitts and Nevis

113=Saint Lucia

114=Saudi Arabia

115=Senegal

116=Serbia

117=Sierra Leone

118=Singapore

119=Slovakia

120=Slovenia

121=South Africa

122=Spain

123=Sri Lanka

124=St Vincent and the Grenadines

126=Swaziland

127=Sweden

128=Switzerland

129=Syria

130=Taiwan

131=Tanzania

132=Thailand

133=Trinidad and Tobago

134=Tunisia

135=Turkey

136=Turkmenistan

137=Uganda

138=Ukraine

139=United Arab Emirates

140=United Kingdom

141=Uruguay

142=Uzbekistan

143=Venezuela

144=Vietnam

145=West Bank

146=Yemen

147=Yugoslavia

148=Zambia

149=Zimbabwe

150=Other

Socioeconomic status

How would you describe your financial situation right now?

1=Always stressful

2=Often stressful

3=Sometimes stressful

4=Rarely stressful

5=Never stressful

SDS57

Included if 'Financial Stress' module not selected

How would you describe your financial situation while growing up?

1=Always stressful

2=Often stressful

3=Sometimes stressful

4=Rarely stressful

5=Never stressful

SDS58

Included if ‘Financial Stress’ module not selected

Work responsibilities

What is the average number of hours you work per week during the school year (paid employment only)?

Free Response

SDS55

What is the highest level of education completed by your parents or stepparents?

Parent 1

This parent’s relationship to you:

1=Mother or stepmother

2=Father or stepfather

3=Other

This parent’s education:

1=8th grade or lower

2=Between 9th and 12th grade (but no high school degree)

3=High school degree

4=Some college (but no college degree)

5=Associate’s degree

6=Bachelor’s degree

7=Graduate degree

8=Don’t know

What is the highest level of education completed by your parents

This parent’s relationship to you:

Parent 2

1=Mother or stepmother

2=Father or stepfather

3=Other

This parent's education:

1=8th grade or lower

2=Between 9th and 12th grade (but no high school degree)

3=High school degree

4=Some college (but no college degree)

5=Associate's degree

6=Bachelor's degree

7=Graduate degree

8=Don't know

Religiosity

How important is religion in your life?

1=Very Important

2=Important

3=Neutral

4=Unimportant

5=Very unimportant

SDS36

What is your religious affiliation?

(Select all that apply)

1=Agnostic

2=Atheist

3=Buddhist

4=Catholic

5=Christian

6=Hindu

7=Jewish

8=Muslim

9=No preference [mutually exclusive]

10=Self-identify (please specify)

SDS97

Academic information

In what degree program are you currently enrolled?

(Select all that apply)

1=Associate’s

2=Bachelor’s

3=Master’s

4=JD

5=MD

6=PhD (or equivalent doctoral program)

7=Other (please specify)

8=Non-degree student [mutually exclusive]

SDS39

Did you transfer from another campus/institution

to this school?

1=Yes, I transferred from a community or junior college.

2=Yes, I transferred from a 4-year college or university.

3=No

SDS46

What year are you in your current degree program?

1=1st year

2=2nd year

3=3rd year

4=4th year

5=5th year

6=6th year

7=7th+ year

Display if “Non-degree student” not selected for “In what degree program are you currently enrolled?”

What is your enrollment status?

1=Full-time student

2=Part-time student

3=Other (please specify)

What is your field of study?

(Select all that apply)

1=Humanities (history, languages, philosophy, etc.)

2=Natural sciences or mathematics

3=Social sciences (economics, psychology, etc.)

4=Architecture or urban planning

5=Art and design

6=Business

7=[if graduate, ask□Dentistry]

8=Education

9=Engineering

10=[if graduate, ask□Law]

11=[if graduate, ask□Medicine]

12=Music, theatre, or dance

13=Nursing

14=Pharmacy

15=[if undergraduate, ask□Pre-professional (pre-business, pre-health, pre-law)]

16=Public health

17=Public policy

18=[if graduate, ask□Social work]

19=[if undergraduate, ask□Undecided]

[mutually exclusive]

20=Other (please specify)

What is your current overall GPA?

0=A+

1=A

2=A-

3=B+

4=B

5=B-

6=C+

7=C

8=C-

9=D+ or below

10=No grade or don’t know

SDS46

In the past 4 weeks, how many days have you felt that emotional or mental difficulties have hurt your academic performance?

1=None

2=1-2 days

3=3-5 days

4=6 or more days

How much time do you spend during a typical week attending classes/lab?

1=Less than 1 hour/week

2=1-2 hours/week

3=3-5 hours/week

4=6-10 hours/week

5=11-15 hours/week

6=16-20 hours/week

7=More than 20 hours/week

How much time do you spend during a typical week studying/doing homework?

1=Less than 1 hour/week

2=1-2 hours/week

3=3-5 hours/week

4=6-10 hours/week

5=11-15 hours/week

6=16-20 hours/week

7=More than 20 hours/week

How much do you agree with the following statement?:

I am confident that I will be able to finish my degree no matter what challenges I may face.

1=Strongly agree

2=Agree

3=Somewhat agree

Included if 'Persistence and Retention' module not selected

What is your field of study?

(Select all that apply)

1=Humanities (history, languages, philosophy, etc.)

2=Natural sciences or mathematics

3=Social sciences (economics, psychology, etc.)

4=Architecture or urban planning

5=Art and design

6=Business

7=[if graduate, ask□Dentistry]

8=Education

9=Engineering

10=[if graduate, ask□Law]

11=[if graduate, ask□Medicine]

12=Music, theatre, or dance

13=Nursing

14=Pharmacy

15=[if undergraduate, ask□Pre-professional (pre-business, pre-health, pre-law)]

16=Public health

17=Public policy

18=[if graduate, ask□Social work]

19=[if undergraduate, ask□Undecided]

[mutually exclusive]

20=Other (please specify)

What is your current overall GPA?

0=A+

1=A

2=A-

3=B+

4=B

5=B-

6=C+

7=C

8=C-

9=D+ or below

10=No grade or don't know

SDS46

In the past 4 weeks, how many days have you felt that emotional or mental difficulties have hurt your academic performance?

1=None

2=1-2 days

3=3-5 days

4=6 or more days

How much time do you spend during a typical week attending classes/lab?

1=Less than 1 hour/week

2=1-2 hours/week

3=3-5 hours/week

4=6-10 hours/week

5=11-15 hours/week

6=16-20 hours/week

7=More than 20 hours/week

How much time do you spend during a typical week studying/doing homework?

1=Less than 1 hour/week

2=1-2 hours/week

3=3-5 hours/week

4=6-10 hours/week

5=11-15 hours/week

6=16-20 hours/week

7=More than 20 hours/week

How much do you agree with the following statement?:

I am confident that I will be able to finish my degree no matter what challenges I may face.

1=Strongly agree

2=Agree

3=Somewhat agree

Included if ‘Persistence and Retention’ module not selected

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Housing

Where do you currently live?

1=On-campus housing, residence hall

2=On-campus housing, apartment

3=Fraternity or sorority house

4=On- or off-campus co-operative housing

5=Off-campus, non-university housing

6=With my parents (or relatives)

7=Other (please specify)

Extracurricular activities

What activities do you currently participate in at your school?

(Select all that apply)

1=Academic or pre-professional organization

2=Athletics (club)

3=Athletics (intercollegiate varsity)

4=Athletics (intramural)

5=Community service

6=Cultural or racial organization

7=Dance

8=Fraternity or sorority

9=Gender or sexuality organization

10=Government or politics (including student government)

11=Health and wellness organization

12=Media or publications

13=Music or drama

14=Religious organization

15=Social organization (that is not a fraternity or sorority)

16=Visual or fine arts

17=Other (please specify)

18=None

[mutually exclusive]

What sport(s) do you participate in at your school?

1=Baseball

2=Basketball

3=Boxing

4=Cheering and/or dancing

5=Cross country

6=Cycling

7=Fencing

8=Field hockey

9=Football

10=Golf

11=Gymnastics

12=Ice hockey

13=Lacrosse

14=Rowing

15=Rugby

16=Sailing

17=Soccer

18=Softball

19=Swimming and/or diving

20=Tennis

21=Track and field

22=Volleyball

23=Water polo

24=Wrestling

25=Other

Instructions for this item: “(Use command or control key to select more than 1 sport.)”

[multi-select box

Military experience

Have you ever served in the United States Armed Forces, military Reserves, or National Guard?

1=No, never served in the military

2=Yes, currently in Reserve Officers’ Training Corps (ROTC)

3=Yes, currently in military Reserves or National Guard

4=Yes, now on active duty

5=Yes, on active duty during the past 12 months, but not now

6=Yes, on active duty in the past, but not during the past 12 months

Disabilities

Are you registered, with the office for disability services on this campus, as having a documented and diagnosed disability?

1=Yes

2=No

SDS60

If you selected, “Yes” for the previous question, please indicate which category of disability you are registered for:

(Select all that apply)

1=Attention deficit/hyperactivity disorders

2=Deaf or hard of hearing

3=Learning disorders

4=Mobility Impairments

5=Neurological disorders

6=Physical/health related disorders

7=Psychological disorder/condition

8=Visual impairments

9=Other (please specify)

SDS61

Other disability:

Free Response

SDS21

How often have you used the disability-related accommodations recommended for you?

1=Not at all

2=Occasionally

3=Frequently

Positive mental health

I lead a purposeful and meaningful life.

1=1=Strongly disagree

2=2=Disagree

3=3=Slightly disagree

4=4=Mixed or neither agree nor disagree

5=5=Slightly agree

6=6=Agree

7=7=Strongly agree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

Instructions for this item: “Below are 8 statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by indicating that response for each statement.”

My social relationships are supportive and rewarding.

1=1=Strongly disagree

2=2=Disagree

3=3=Slightly disagree

4=4=Mixed or neither agree nor disagree

5=5=Slightly agree

6=6=Agree

7=7=Strongly agree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

Instructions for this item: “Below are 8 statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by indicating that response for each statement.”

I am engaged and interested in my daily activities.

1=1=Strongly disagree

2=2=Disagree

3=3=Slightly disagree

4=4=Mixed or neither agree nor disagree

5=5=Slightly agree

6=6=Agree

7=7=Strongly agree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

Instructions for this item: “Below are 8 statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by indicating that response for each statement.”

I actively contribute to the happiness and well-being of others.

1=1=Strongly disagree

2=2=Disagree

3=3=Slightly disagree

4=4=Mixed or neither agree nor disagree

5=5=Slightly agree

6=6=Agree

7=7=Strongly agree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

Instructions for this item: “Below are 8 statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by indicating that response for each statement.”

I am competent and capable in the activities that are important to me.

1=1=Strongly disagree

2=2=Disagree

3=3=Slightly disagree

4=4=Mixed or neither agree nor disagree

5=5=Slightly agree

6=6=Agree

7=7=Strongly agree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

Instructions for this item: “Below are 8 statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by indicating that response for each statement.”

I am a good person and live a good life.

1=1=Strongly disagree

2=2=Disagree

3=3=Slightly disagree

4=4=Mixed or neither agree nor disagree

5=5=Slightly agree

6=6=Agree

7=7=Strongly agree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

Instructions for this item: “Below are 8 statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by indicating that response for each statement.”

I am optimistic about my future.

1=1=Strongly disagree

2=2=Disagree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

Positive mental health

I lead a purposeful and meaningful life.

1=1=Strongly disagree

2=2=Disagree

3=3=Slightly disagree

4=4=Mixed or neither agree nor disagree

5=5=Slightly agree

6=6=Agree

7=7=Strongly agree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

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2=2=Disagree

3=3=Slightly disagree

4=4=Mixed or neither agree nor disagree

5=5=Slightly agree

6=6=Agree

7=7=Strongly agree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

Instructions for this item: “Below are 8 statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by indicating that response for each statement.”

I am engaged and interested in my daily activities.

1=1=Strongly disagree

2=2=Disagree

3=3=Slightly disagree

4=4=Mixed or neither agree nor disagree

5=5=Slightly agree

6=6=Agree

7=7=Strongly agree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

Instructions for this item: “Below are 8 statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by indicating that response for each statement.”

I actively contribute to the happiness and well-being of others.

1=1=Strongly disagree

2=2=Disagree

3=3=Slightly disagree

4=4=Mixed or neither agree nor disagree

5=5=Slightly agree

6=6=Agree

7=7=Strongly agree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

Instructions for this item: “Below are 8 statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by indicating that response for each statement.”

I am competent and capable in the activities that are important to me.

1=1=Strongly disagree

2=2=Disagree

3=3=Slightly disagree

4=4=Mixed or neither agree nor disagree

5=5=Slightly agree

6=6=Agree

7=7=Strongly agree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

Instructions for this item: “Below are 8 statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by indicating that response for each statement.”

I am a good person and live a good life.

1=1=Strongly disagree

2=2=Disagree

3=3=Slightly disagree

4=4=Mixed or neither agree nor disagree

5=5=Slightly agree

6=6=Agree

7=7=Strongly agree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

Instructions for this item: “Below are 8 statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by indicating that response for each statement.”

I am optimistic about my future.

1=1=Strongly disagree

2=2=Disagree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

3=3=Slightly disagree

4=4=Mixed or neither agree nor disagree

5=5=Slightly agree

6=6=Agree

7=7=Strongly agree

Instructions for this item: “Below are 8 statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by indicating that response for each statement.”

People respect me.

1=1=Strongly disagree

2=2=Disagree

3=3=Slightly disagree

4=4=Mixed or neither agree nor disagree

5=5=Slightly agree

6=6=Agree

7=7=Strongly agree

Flourishing Scale

(Diener & Biswas-Diener, 2009)

Instructions for this item: “Below are 8 statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by indicating that response for each statement.”

Depression

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Little interest or pleasure in doing things

1=Not at all

2=Several days

3=More than half the days

4=Nearly every day

Patient Health Questionnaire-9

(Kroenke et al., 2001)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Feeling down, depressed or hopeless

1=Not at all

2=Several days

3=More than half the days

4=Nearly every day

Patient Health Questionnaire-9

(Kroenke et al., 2001)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Trouble falling or staying asleep, or sleeping too much

1=Not at all

2=Several days

3=More than half the days

4=Nearly every day

Patient Health Questionnaire-9

(Kroenke et al., 2001)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Feeling tired or having little energy

1=Not at all

2=Several days

3=More than half the days

4=Nearly every day

Patient Health Questionnaire-9

(Kroenke et al., 2001)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Poor appetite or overeating

1=Not at all

2=Several days

3=More than half the days

4=Nearly every day

Patient Health Questionnaire-9

(Kroenke et al., 2001)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Feeling bad about yourself—or that you are a failure or have let yourself or your family down

1=Not at all

2=Several days

3=More than half the days

4=Nearly every day

Patient Health Questionnaire-9

(Kroenke et al., 2001)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Trouble concentrating on things, such as reading the newspaper or watching television

1=Not at all

2=Several days

3=More than half the days

4=Nearly every day

Patient Health Questionnaire-9

(Kroenke et al., 2001)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Moving or speaking so slowly that other people could have noticed; or the opposite—being so fidgety or restless that you have been moving around a lot more than usual

1=Not at all

2=Several days

3=More than half the days

4=Nearly every day

Patient Health Questionnaire-9

(Kroenke et al., 2001)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Thoughts that you would be better off dead or of hurting yourself in some way

1=Not at all

2=Several days

3=More than half the days

4=Nearly every day

Patient Health Questionnaire-9

(Kroenke et al., 2001)

How difficult have these problems (noted above) made it for you to do your work, take care of things at home, or get along with other people?

1=Not difficult at all

2=Somewhat difficult

3=Very difficult

4=Extremely difficult

Adapted from Patient Health Questionnaire-9

(Kroenke et al., 2001)

During that period, how often were you bothered by these problems?

Little interest or pleasure in doing things

1=Not at all

2=Several days

3=More than half the days

4=Nearly every day

Adapted from Patient Health Questionnaire-2

Instructions for this item: “Think about the 2-week period in the past year when you experienced the 2 problems below the most frequently.”

During that period, how often were you bothered by these problems?

Feeling down, depressed or hopeless

1=Not at all

2=Several days

3=More than half the days

4=Nearly every day

Adapted from Patient Health Questionnaire-2

Instructions for this item: “Think about the 2-week period in the past year when you experienced the 2 problems below the most frequently.”

Anxiety

Over the last 2 weeks, how often have you been bothered by the following problems?

Feeling nervous, anxious or on edge

1=Not at all

2=Several days

3=Over half the days

4=Nearly every day

GAD-7

(Spitzer et al., 2006)

Over the last 2 weeks, how often have you been bothered by the following problems?

Not being able to stop or control worrying

1=Not at all

2=Several days

3=Over half the days

4=Nearly every day

GAD-7

(Spitzer et al., 2006)

Over the last 2 weeks, how often have you been bothered by the following problems?

Worrying too much about different things

1=Not at all

2=Several days

3=Over half the days

4=Nearly every day

GAD-7

(Spitzer et al., 2006)

Over the last 2 weeks, how often have you been bothered by the following problems?

Trouble relaxing

1=Not at all

2=Several days

3=Over half the days

4=Nearly every day

GAD-7

(Spitzer et al., 2006)

Over the last 2 weeks, how often have you been bothered by the following problems?

Being so restless that it's hard to sit still

1=Not at all

2=Several days

3=Over half the days

4=Nearly every day

GAD-7

(Spitzer et al., 2006)

Over the last 2 weeks, how often have you been bothered by the following problems?

Becoming easily annoyed or irritable

1=Not at all

2=Several days

3=Over half the days

4=Nearly every day

GAD-7

(Spitzer et al., 2006)

Over the last 2 weeks, how often have you been bothered by the following problems?

Feeling afraid as if something awful might happen

1=Not at all

2=Several days

3=Over half the days

4=Nearly every day

GAD-7

(Spitzer et al., 2006)

How difficult have these problems (noted above) made it for you to do your work, take care of things at home, or get along with other people?

1=Not difficult at all

2=Somewhat difficult

3=Very difficult

4=Extremely difficult

Eating and body image

Do you need to be very thin in order to feel good about yourself?

1=Yes

0=No

Included if 'Eating and Body Image' module not selected

I think I am…

1=Very underweight

2=Somewhat underweight

3=Normal weight

4=Somewhat overweight

5=Very overweight

Included if ‘Eating and Body Image’ module not selected

What is your current height?

(If you don’t know, please provide your best guess.)

1=______ feet

[force numeric, <7]

2=______ inches

[force numeric, <11]

Included if ‘Eating and Body Image’ module not selected

What is your current weight?

(If you don’t know, please provide your best guess.)

1=______ pounds

[force numeric]

Included if ‘Eating and Body Image’ module not selected

Do you ever make yourself sick because you feel uncomfortably full?

1=Yes

0=No

Included if ‘Eating and Body Image’ module not selected

SCOFF questionnaire

(Morgan, Reid, & Lacey, 1999)

Instructions for this item: “Please answer the following questions as honestly as possible.”

Do you worry that you have lost control over how much you eat?

1=Yes

0=No

Included if ‘Eating and Body Image’ module not selected

SCOFF questionnaire

(Morgan, Reid, & Lacey, 1999)

Instructions for this item: “Please answer the following questions as honestly as possible.”

Have you recently lost more than 15 pounds in a 3-month period?

1=Yes

0=No

Included if ‘Eating and Body Image’ module not selected

SCOFF questionnaire

(Morgan, Reid, & Lacey, 1999)

Instructions for this item: “Please answer the following questions as honestly as possible.”

Do you believe yourself to be fat when others say you are too thin?

1=Yes

0=No

Included if ‘Eating and Body Image’ module not selected

SCOFF questionnaire

(Morgan, Reid, & Lacey, 1999)

Instructions for this item: “Please answer the following questions as honestly as possible.”

Would you say that food dominates your life?

1=Yes

0=No

Included if ‘Eating and Body Image’ module not selected

SCOFF questionnaire

(Morgan, Reid, & Lacey, 1999)

Instructions for this item: “Please answer the following questions as honestly as possible.”

Non-suicidal self-injury

In the past year, have you ever done any of the following intentionally?

(Select all that apply)

1=Cut myself

2=Burned myself

3=Punched or banged myself

4=Scratched myself

5=Pulled my hair

6=Bit myself

7=Interfered with wound healing

8=Carved words or symbols into skin

9=Rubbed sharp objects into skin

10=Punched or banged an object to hurt myself

11=Other (please specify)

12=No, none of these

[mutually exclusive]

Instructions for this item: "This question asks about ways you may have hurt yourself on purpose, without intending to kill yourself."

On average, how often in the past year did you hurt yourself on purpose, without intending to kill yourself?

1=Once or twice

2=Once a month or less

3=2 or 3 times a month

4=Once or twice a week

5=3 to 5 days a week

6=Nearly everyday, or everyday

Suicidality

In the past year, did you ever seriously think about attempting

1=Yes

suicide?

0=No

In the past year, did you make a plan for attempting suicide?

1=Yes

0=No

In the past year, did you attempt suicide?

1=Yes

0=No

Violence

In your lifetime, how many times has anyone struck or physically injured you?

1=Never

2=1 time

3=2-3 times

4=4-5 times

5=More than 5 times

Included if 'Overall Health' module not selected

When was the last time anyone has struck or physically injured you?

1=Within the last 2 weeks

2=Within the last month

3=Within the last year

4=Within the last 1-5 years

5=More than 5 years ago

Included if 'Overall Health' module not selected

Over the past 12 months, did you strike or physically injure anyone?

1=Yes

0=No

Included if ‘Overall Health’ module not selected

Sexual assault

Over the past 12 months, have you experienced emotional, physical, or sexual abuse (either from someone you know or don’t know)?

1=Yes

0=No

Included if ‘Sexual Assault’ and ‘Overall Health’ modules both not selected

Over the past 12 months, were you emotionally abused?

(Examples include being called names, being yelled at, humiliated, judged, threatened, coerced, or controlled.)

1=Yes

0=No

Included if ‘Sexual Assault’ and ‘Overall Health’ modules both not selected

Over the past 12 months, were you physically abused?

(Examples include being kicked, slapped, punched or otherwise physically mistreated.)

1=Yes

0=No

Included if ‘Sexual Assault’ and ‘Overall Health’ modules both not selected

Over the past 12 months, were you in a sexually abusive relationship?

(By ‘sexually abusive relationship’, we mean one in which an intimate partner forced or coerced you to perform or receive sexual acts, or forced you to have intercourse when you didn’t want to.)

1=Yes

0=No

Included if ‘Sexual Assault’ and ‘Overall Health’ modules both not selected

Over the past 12 months, were you ever forced to have unwanted sexual intercourse through the use of physical force or threat by someone who was not an intimate partner?

(By ‘sexual intercourse’, we mean completed or attempted penetration.)

1=Yes

0=No

Included if ‘Sexual Assault’ and ‘Overall Health’ modules both not selected

Definition from CDC NISVS 2010

Substance use

Over the past 2 weeks, did you drink any alcohol?

1=Yes

0=No

Included if ‘Substance Use’ and ‘Overall Health’ modules both not selected

Over the past 2 weeks, about how many times did you have 4 [female]/5 [male]/4 or 5 [not female or male] or more alcoholic drinks in a row?

(1 drink is a can of beer, a glass of wine, a wine cooler, a shot of liquor, or a mixed drink.)

1=0 times

2=1 time

3=2 times

4=3 to 5 times

5=6 to 9 times

6=10 or more times

7=Don’t know

Included if ‘Substance Use’ and ‘Overall Health’ modules both not selected

Definition adapted from National Institute on Alcohol Abuse and Alcoholism

Over the past 30 days, about how many cigarettes did you smoke per day?

1=0 cigarettes

2=Less than 1 cigarette

3=1 to 5 cigarettes

4=About one-half pack

5=1 or more packs

Included if ‘Substance Use’ and ‘Overall Health’ modules both not selected

Over the past 30 days, have you used any of the following drugs?

(Select all that apply)

1=Marijuana

2=Cocaine (any form, including crack, powder, or freebase)

3=Heroin

4=Methamphetamines (also known

Included if ‘Substance Use’ and ‘Overall Health’ modules both not selected

as speed, crystal meth, or ice)

5=Other stimulants (such as Ritalin, Adderall) without a prescription

6=Ecstasy

7=Other drugs without a prescription (please specify)

8=No, none of these

[mutually exclusive]

Sleep

During this school year, at approximately what time have you typically gone to sleep on:

Weeknights?

1=12:00pm

2=1:00pm

3=2:00pm

4=3:00pm

5=4:00pm

6=5:00pm

7=6:00pm

8=7:00pm

9=8:00pm

10=9:00pm

11=10:00pm

12=11:00pm

13=12:00am

14=1:00am

15=2:00am

16=3:00am

17=4:00am

18=5:00am

19=6:00am

20=7:00am

21=8:00am

22=9:00am

23=10:00am

24=11:00am

Included if ‘Sleep’ and ‘Overall Health’ modules both not selected

During this school year, at approximately what time have you typically gone to sleep on: Weekend nights?

1=12:00pm

2=1:00pm

3=2:00pm

4=3:00pm

5=4:00pm

6=5:00pm

7=6:00pm

8=7:00pm

9=8:00pm

10=9:00pm

11=10:00pm

12=11:00pm

13=12:00am

14=1:00am

15=2:00am

16=3:00am

17=4:00am

18=5:00am

19=6:00am

20=7:00am

21=8:00am

22=9:00am

23=10:00am

24=11:00am

Included if ‘Sleep’ and ‘Overall Health’ modules both not selected

During this school year, at approximately what time have you typically woken up on:

Weekdays?

1=12:00pm

2=1:00pm

3=2:00pm

4=3:00pm

5=4:00pm

6=5:00pm

7=6:00pm

8=7:00pm

9=8:00pm

10=9:00pm

11=10:00pm

12=11:00pm

13=12:00am

14=1:00am

15=2:00am

16=3:00am

17=4:00am

18=5:00am

19=6:00am

20=7:00am

21=8:00am

22=9:00am

23=10:00am

24=11:00am

Included if ‘Sleep’ and ‘Overall Health’ modules both not selected

During this school year, at approximately what time have you typically woken up on:

Weekend days?

1=12:00pm

2=1:00pm

3=2:00pm

4=3:00pm

5=4:00pm

6=5:00pm

7=6:00pm

8=7:00pm

9=8:00pm

10=9:00pm

11=10:00pm

12=11:00pm

13=12:00am

14=1:00am

15=2:00am

16=3:00am

17=4:00am

18=5:00am

19=6:00am

20=7:00am

21=8:00am

22=9:00am

23=10:00am

24=11:00am

Included if ‘Sleep’ and ‘Overall Health’ modules both not selected

During this school year, on how many days have you taken naps during a typical week?

1=I don’t take naps.

2=1

3=2

4=3

5=4

6=5

7=6

8=7

Included if ‘Sleep’ and ‘Overall Health’ modules both not selected

How long is your typical nap?

1=Less than 1 hour

2=Between 1 and 2 hours

3=Between 2 and 3 hours

4=More than 3 hours

Included if 'Sleep' and 'Overall Health' modules both not selected

Diagnosed mental illnesses

Have you ever been diagnosed with any of the following conditions by a health professional (e.g., primary care doctor, psychiatrist, psychologist, etc.)?

(Select all that apply)

1=Depression (e.g., major depressive disorder, bipolar/manic depression, dysthymia, persistent depressive disorder)

2=Anxiety (e.g., generalized anxiety disorder, phobias, obsessive-compulsive disorder, post-traumatic stress disorder)

3=Attention disorder or learning disability (e.g., attention deficit disorder, attention deficit hyperactivity disorder, learning disability)

4=Eating disorder (e.g., anorexia nervosa, bulimia nervosa)

5=Psychosis (e.g., schizophrenia, schizo-affective disorder)

6=Personality disorder (e.g., antisocial personality disorder, paranoid personality disorder, schizoid personality disorder)

7=Substance abuse disorder (e.g., alcohol abuse, abuse of other drugs)

8=No, none of these

[mutually exclusive]

9=Don't know

Specifically, which of the following depression disorders were you diagnosed with by a professional?

(Select all that apply)

1=Major depressive disorder

2=Dysthymia or persistent depressive disorder

3=Bipolar/manic depression

4=Cyclothymia (can be thought of as low-level bipolar disorder)

5=Other (please specify)

6=Don't know

Specifically, which of the following anxiety disorders were you diagnosed with by a professional?

(Select all that apply)

1 =Generalized anxiety disorder

2=Panic disorder

3=Agoraphobia

4=Specific phobia (e.g., claustrophobia, arachnophobia, etc.)

5=Social phobia

6=Obsessive-compulsive disorder

7=Acute stress disorder

8=Post traumatic stress disorder (PTSD)

9=Other (please specify)

10=Don't know

Specifically which of the following attention or learning disability disorders were you diagnosed with by a professional?

(Select all that apply)

1=Attention deficit hyperactivity disorder (ADHD or ADD)

2=Other learning disability

3=Other (please specify)

4=Don't know

Specifically, which of the following eating disorders were you diagnosed with by a professional?

(Select all that apply)

1=Anorexia nervosa

2=Bulimia nervosa

3=Binge-eating Disorder

4=Other (please specify)

5=Don't know

Specifically, which of the following psychotic disorders were you diagnosed with by a professional?

(Select all that apply)

1=Schizophrenia

2=Schizo-affective disorder

3=Brief psychotic disorder

4=Delusional disorder

5=Schizophreniform disorder

6=Shared psychotic disorder

7=Other (please specify)

8=Don't know

Specifically, which of the following personality disorders were you diagnosed with by a professional?

(Select all that apply)

1=Antisocial personality disorder

2=Avoidant personality disorder

3=Borderline personality disorder

4=Dependent personality disorder

5=Histrionic personality disorder

6=Narcissistic personality disorder

7=Obsessive-Compulsive personality disorder

8=Paranoid personality disorder

9=Schizoid personality disorder

10=Schizotypal personality disorder

11=Other (please specify)

12=Don't know

Specifically, which of the following substance disorders were you diagnosed with by a professional?

(Select all that apply)

1=Alcohol abuse or other alcohol-related disorders

2=Other (please specify)

3=Don't know

Knowledge of campus services

How much do you agree with the following statement?:

If I needed to seek professional help for my mental or emotional health, I would know where to go on my campus.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Included if 'Knowledge and Attitudes about Mental Health and Mental Health Services' module not selected

Beliefs about treatment efficacy

How helpful on average do you think medication is, when provided competently, for people your age who are clinically depressed?

1=Very helpful

2=Helpful

3=Somewhat helpful

4=Not helpful

Included if ‘Knowledge and Attitudes about Mental Health and Mental Health Services’ module not selected

How helpful on average do you think therapy or counseling is, when provided competently, for people your age who are clinically depressed?

1=Very helpful

2=Helpful

3=Somewhat helpful

4=Not helpful

Included if ‘Knowledge and Attitudes about Mental Health and Mental Health Services’ module not selected

Stigma

How much do you agree with the following statement?:

Most people think less of a person who has received mental health treatment.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Included if ‘Knowledge and Attitudes about Mental Health and Mental Health Services’ module not selected

How much do you agree with the following statement?:

I would think less of a person who has received mental health treatment.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Included if ‘Knowledge and Attitudes about Mental Health and Mental Health Services’ module not selected

Perceived need

How much do you agree with the following statement?:

In the past 12 months, I needed help for emotional or mental health problems such as feeling sad, blue, anxious or nervous.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

I currently need help for emotional or mental health problems such as feeling sad, blue, anxious or nervous.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Display only if previous item answered with at least “somewhat agree”

Help-seeking intentions

If you were experiencing serious emotional distress, whom would you talk to about this?

(Select all that apply)

1=Professional clinician (e.g., psychologist, counselor, or psychiatrist)

2=Roommate

3=Friend (who is not a roommate)

4=Significant other

5=Family member

6=Religious counselor or other religious contact

7=Support group

8=Other non-clinical source (please specify)

9=No one

[mutually exclusive]

Use of counseling/therapy

Have you ever received counseling or therapy for mental health concerns?

1=No, never

2=Yes, prior to starting college

3=Yes, since starting college

4=Yes, both of the above (prior to college and since starting college)

SDS01

How many total visits or sessions for counseling or therapy have you had in the past 12 months?

0=0

1=1-3

2=4-6

3=7-9

4=10 or more

Display only if selected 2, 3 or 4 previously

Are you currently receiving counseling or therapy?

1=Yes

0=No

Display only if selected 1-4 for previous question

From which of the following places did you receive counseling or therapy?

(Select all that apply)

1=[Insert name of institution's student counseling services]

2=[Insert name of institution's campus health services]

3=[Insert other campus counseling or health service]

4=Psychiatric Emergency Services/Psych Emergency Room (ER)

5=Inpatient psychiatric hospital

6=Partial hospitalization program

7=Provider in the local community (not on campus)

8=Provider in another location (such as your hometown)

9=Other (please specify)

10=Don't know

Display only if selected 1-4 for question before last

Satisfaction with counseling/therapy

How satisfied/dissatisfied are you with the following aspects of your therapy or counseling that you received in the past 12 months at [pipe in selected options from: "From which of the following places did you receive counseling or therapy?"]?:

Convenient hours

1=Very dissatisfied

2=Dissatisfied

3=Somewhat dissatisfied

4=Somewhat satisfied

5=Satisfied

6=Very satisfied

How satisfied/dissatisfied are you with the following aspects of your therapy or counseling that you received in the past 12 months at [pipe in selected options from: "From which of the following

1=Very dissatisfied

2=Dissatisfied

3=Somewhat dissatisfied

places did you receive counseling or therapy?"]?:

Location

4=Somewhat satisfied

5=Satisfied

6=Very satisfied

How satisfied/dissatisfied are you with the following aspects of your therapy or counseling that you received in the past 12 months at [pipe in selected options from: "From which of the following places did you receive counseling or therapy?"]?:

Quality of therapists/counselors

1=Very dissatisfied

2=Dissatisfied

3=Somewhat dissatisfied

4=Somewhat satisfied

5=Satisfied

6=Very satisfied

How satisfied/dissatisfied are you with the following aspects of your therapy or counseling that you received in the past 12 months at [pipe in selected options from: "From which of the following places did you receive counseling or therapy?"]?:

Respect for your privacy concerns

1=Very dissatisfied

2=Dissatisfied

3=Somewhat dissatisfied

4=Somewhat satisfied

5=Satisfied

6=Very satisfied

How satisfied/dissatisfied are you with the following aspects of your therapy or counseling that you received in the past 12 months at [pipe in selected options from: “From which of the following places did you receive counseling or therapy?”]?:

Ability to schedule appointments without long delays

1=Very dissatisfied

2=Dissatisfied

3=Somewhat dissatisfied

4=Somewhat satisfied

5=Satisfied

6=Very satisfied

How helpful, overall, do you think therapy or counseling was or has been for your mental or emotional health?

1=Very helpful

2=Helpful

3=Somewhat helpful

4=Not helpful

Use of medication

In the past 12 months have you taken any of the following types of prescription medications?

(Please count only those you took, or are taking, several times per week.)

(Select all that apply)

1=Psychostimulants (methylphenidate (Ritalin or Concerta), amphetamine salts (Adderall), dextroamphetamine (Dexerdine), etc.)

2=Antidepressants (e.g., fluoxetine (Prozac), sertraline (Zoloft), paroxetine (Paxil), escitalopram (Lexapro), venlafaxine (Effexor), buproprion (Wellbutrin), etc.)

3=Anti-psychotics (e.g., haloperidol (Haldol), clozapine (Clozaril), risperidone (Risperdal), olanzapine (Zyprexas), etc.)

4=Anti-anxietymedications (e.g., lorazepam (Ativan), clonazepam (Klonopin), alprazolam (Xanax), buspirone (BuSpar), etc.)

5=Mood stabilizers (e.g., lithium, valproate (Depakote), lamotrigine (Lamictal), carbamazepine (Tegretol), etc.)

6=Sleep medications (e.g., zolpidem (Ambien), zaleplon (Sonata), etc.)

7=Other medication for mental or emotional health (please specify)

8=No, none of these

[mutually exclusive]

9=Don't know

For what purpose(s) have you taken the medication(s) you just indicated?

(Select all that apply)

1=Mental or emotional health

2=Other health reasons

3=Academic performance

4=Recreation/fun

5=Other (please

In the past 12 months how many times have you discussed with a doctor or other health professional your use of the medication(s)

1=Not at all

2=1-2 times

you just noted?

3=3-5 times

4=More than 5 times

5=Don't know

Who wrote your most recent prescription for the medication(s) you noted in the last question?

(Select all that apply)

1=A general practitioner, nurse practitioner, or primary care physician

2=A psychiatrist

3=Other type of doctor (please specify)

4=Took the medication(s) without a prescription

5=Don't know

Of the medication(s) you just noted, which are you currently taking?

(Select all that apply)

1=Psychostimulants (methylphenidate (Ritalin, or Concerta), amphetamine salts (Adderall), dextroamphetamine (Dexerdine), etc.)

2=Antidepressants (e.g., fluoxetine (Prozac), sertraline (Zoloft), paroxetine (Paxil), escitalopram (Lexapro), venlafaxine (Effexor), buproprion (Wellbutrin), etc.)

3=Anti-psychotics (e.g., haloperidol (Haldol), clozapine (Clozaril), risperidone (Risperdal), olanzapine (Zyprexas), etc.)

4=Anti-anxiety medications (e.g., lorazepam (Ativan), clonazepam (Klonopin), alprazolam (Xanax), buspirone (BuSpar), etc.)

5=Mood stabilizers (e.g., lithium, valproate (Depakote), lamotrigine (Lamictal), carbamazepine (Tegretol), etc.)

6=Sleep medications (e.g., zolpidem (Ambien), zaleplon (Sonata), etc.)

7=Other medication for mental or emotional health (please specify)

8=None of the above

[mutually exclusive]

During the past year, for how long, in total, have you taken the following medication(s)?

1=Less than 1 month

2=Between 1 and 2 months

3=2 months or more

4=Did not take

Pipe in selected options from: "In the past 12 months have you taken any of the following types of prescription medications?

(Please count only those you took, or are taking, several times per week.)"

How helpful, overall, do you think the medication(s) was or has been for your mental or emotional health?

1=Very helpful

2=Helpful

3=Somewhat helpful

4=Not helpful

Which of the following are important reasons why you received those services?

(Select all that apply)

1=I decided on my own to seek help.

2=A friend encouraged me to seek help.

3=A friend pressured me to seek help.

4=A family member encouraged me to seek help.

5=A family member pressured me to seek help.

6=Someone other than a friend or family member encouraged me to seek help (please specify person's relationship to you).

7=I was mandated to seek help by campus staff.

8=I acquired more information about my options from (please specify where).

9=Other (please specify)

Instructions for this item: "Earlier in this survey you reported that you have taken medication and/or received counseling/therapy in the past 12 months for your mental or emotional health."

Barriers to help-seeking

In the past 12 months, which of the following factors have caused you to receive fewer services (counseling, therapy, or medications) for your mental or emotional health than you would have

1=No need for services

2=Financial reasons (too expensive, not covered by insurance)

otherwise received?

(Select all that apply)

3=Not enough time

4=Not sure where to go

5=Difficulty finding an available appointment

6=Prefer to deal with issues on my own or with support from family/friends

7=Other (please specify)

8=No barriers

[mutually exclusive]

In the past 12 months which of the following explain why you have not received medication or therapy for your mental or emotional health?

(Select all that apply)

1=I haven't had the chance to go but I plan to.

2=No need for services

3=Financial reasons (too expensive, not covered by insurance)

4=Not enough time

5=Not sure where to go

6=Difficulty finding an available appointment

7=Prefer to deal with issues on my own or with support from family/friends

8=Other (please specify)

9=No barriers

[mutually exclusive]

Visit to medical providers

In the past 12 months, have you visited any medical provider, such as a primary care doctor or other type of doctor, for a check-up or any other medical reasons?

1=Yes

0=No

Informal help-seeking

In the past 12 months have you received counseling or support for your mental or emotional health from any of the following sources?

(Select all that apply)

1=Roommate

2=Friend (who is not a roommate)

3=Significant other

4=Family member

5=Religious counselor or other religious contact

6=Support group

7=Other non-clinical source (please specify)

8=No, none of these

[mutually exclusive]

How helpful was it to discuss these concerns?

1=Very helpful

2=Helpful

3=Somewhat helpful

4=Not helpful

If you had a mental health problem that you believed was affecting your academic performance, which people at school would you talk to?

(Select all that apply)

1=Professor from one of my classes

2=Academic advisor

3=Another faculty member

4=Teaching assistant

5=Student services staff

6=Dean of Students or class dean

7=Other (please specify)

8=No one

[mutually exclusive]

During this school year have you talked with any academic personnel (such as instructors, advisors, or other academic staff) about any mental health problems that were affecting your academic performance?

1=Yes

0=No

Overall, how supportive was the response of the academic personnel with whom you talked?

1=Very supportive

2=Supportive

3=Not supportive

4=Very unsupportive

Insurance

What is the source of your current health insurance coverage?

(Select all that apply)

1=I do not have any health insurance coverage (uncovered).

[mutually exclusive]

2=I have health insurance through my parent(s) or their employer.

3=I have health insurance through my employer.

4=I have health insurance through my spouse's employer.

5=I have a student health insurance plan.

6=I have health insurance through an embassy or sponsoring agency for international students.

7=I have individual health insurance purchased directly from an insurance carrier.

8=I have Medicaid or other governmental insurance.

9=I am uncertain about whether I have health insurance.

10=I have health insurance but am uncertain about where it is from.

Do you know if your health insurance plan would provide any coverage for a visit to a mental health professional (psychiatrist, psychologist, clinical social worker, etc.)?

1=Yes, it definitely would.

2=I think it would but am not sure.

3=I have no idea.

4=I think it would not but am not sure.

5=No, it definitely would not.

Does your current health insurance plan meet your needs for mental health services?

1=I have not needed to use my current insurance plan to cover mental health services.

2=Yes, everything I have needed is covered.

3=No, the coverage is inadequate to meet my needs.

I feel that coverage is inadequate because my plan…

(Select all that apply)

1=…doesn't cover any mental health services.

2=…doesn't cover preexisting conditions.

3=…doesn't cover certain conditions.

4=…has a co-pay that is too expensive.

5=…has a deductible that is too expensive.

6=…doesn't cover certain types of services or providers.

7=…has a limit on the number of services that are covered.

8=Other (please specify)

This semester, how easy or difficult has it been paying for mental health care?

1=Very easy

2=Easy

3=Somewhat easy

4=Somewhat difficult

5=Difficult

6=Very difficult

7=Not applicable

Additional insurance-related question from CCMH

Personal alcohol use

How often do you have a drink containing alcohol?

1=Never

2=Monthly or less

3=2-4 times a month

4=2-3 times a week

5=4 or more times a week

AUDIT

(Saunders et al., 1993)

How many drinks containing alcohol do you have on a typical day when you are drinking?

(1 drink is a can of beer, a glass of wine, a wine cooler, a shot of liquor, or a mixed drink.)

1=1 or 2

2=3 or 4

3=5 or 6

4=7 to 9

5=10 or more

AUDIT

(Saunders et al., 1993)

Definition adapted from National Institute on Alcohol Abuse and Alcoholism

How often do you have 4 [female]/5 [male]/4 or 5 [not female or male] or more drinks on 1 occasion?

(1 drink is a can of beer, a glass of wine, a wine cooler, a shot of liquor, or a mixed drink.)

1=Never

2=Less than monthly

3=Monthly

4=Weekly

5=Daily or almost daily

AUDIT

(Saunders et al., 1993)

Definition adapted from National Institute on Alcohol Abuse and Alcoholism

How often during the last year have you found that you were not able to stop drinking once you had started?

1=Never

2=Less than monthly

3=Monthly

4=Weekly

5=Daily or almost daily

AUDIT

(Saunders et al., 1993)

How often during the last year have you failed to do what was normally expected of you because of drinking?

1=Never

2=Less than monthly

3=Monthly

4=Weekly

5=Daily or almost daily

AUDIT

(Saunders et al., 1993)

How often during the last year have you needed a drink in the morning to get yourself going after a heavy drinking session?

1=Never

2=Less than monthly

3=Monthly

4=Weekly

5=Daily or almost daily

AUDIT

(Saunders et al., 1993)

How often during the last year have you had a feeling of guilt or remorse after drinking?

1=Never

2=Less than monthly

3=Monthly

4=Weekly

5=Daily or almost daily

AUDIT

(Saunders et al., 1993)

How often during the last year have you been unable to remember what happened the night before of your drinking?

1=Never

2=Less than monthly

3=Monthly

4=Weekly

5=Daily or almost daily

AUDIT

(Saunders et al., 1993)

Have you or someone else been injured because you had been drinking?

0=No

1=Yes, but not in the last year

2=Yes, during the last year

AUDIT

(Saunders et al., 1993)

Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?

1=No

2=Yes, but not in the last year

3=Yes, during the last year

AUDIT

(Saunders et al., 1993)

Have you ever received counseling or treatment for an alcohol-

1=Yes

related problem from a health professional (such as psychiatrist, psychologist, social worker, or primary care doctor)?

0=No

Personal substance use

Over the past 30 days, have you used any of the following drugs?

(Select all that apply)

1=Marijuana

2=Cocaine (any form, including crack, powder, or freebase)

3=Heroin

4=Methamphetamines (also known as speed, crystal meth, or ice)

5=Other stimulants (such as Ritalin, Adderall) without a prescription

6=Ecstasy

7=Other drugs without a prescription (please specify)

8=No, none of these

[mutually exclusive]

Over the past 30 days, about how many cigarettes did you smoke per day?

1=0 cigarettes

2=Less than 1 cigarette

3=1 to 5 cigarettes

4=About one-half pack

5=1 or more packs

Perception of risk regarding substance use

How much do you think people risk harming themselves physically or in other ways when they have 5 or more drinks containing alcohol once or twice a week?

(1 drink is a can of beer, a glass of wine, a wine cooler, a shot of liquor, or a mixed drink.)

1=No risk

2=Slight risk

3=Moderate risk

4=Great risk

Adapted from Drug Free Communities Support Program Evaluation of Core Measures Survey (2012)

Definition adapted from National Institute on Alcohol Abuse and Alcoholism

How much do you think people risk harming themselves physically or in other ways if they smoke 1 or more packs of cigarettes per day?

1=No risk

2=Slight risk

3=Moderate risk

4=Great risk

Adapted from Drug Free Communities Support Program Evaluation of Core Measures Survey (2012)

How much do you think people risk harming themselves physically or in other ways if they smoke marijuana once or twice a week?

1=No risk

2=Slight risk

3=Moderate risk

4=Great risk

Adapted from Drug Free Communities Support Program Evaluation of Core Measures Survey (2012)

How much do you think people risk harming themselves physically or in other ways if they use prescription drugs that are not prescribed to them?

1=No risk

2=Slight risk

3=Moderate risk

4=Great risk

Adapted from Drug Free Communities Support Program Evaluation of Core Measures Survey (2012)

Other students alcohol use

In the past 30 days, how often have you had to "baby-sit" or take care of another student who drank too much?

1=0 times

2=1 times

3=2 times

4=3 times

5=4 or more times

In the past 30 days, how often have you experienced an unwanted sexual advance because of other students' drinking?

1=0 times

2=1 times

3=2 times

4=3 times

5=4 or more times

In the past 30 days, how often have you been a victim of sexual assault or "date rape" because of other students' drinking?

1=0 times

2=1 times

3=2 times

4=3 times

5=4 or more times

Perceptions of peer substance use

In the past 30 days, about what percent of students at your school drank alcohol?

1=______ %

[force numeric, 0-100]

Instructions for this item: “The next few items ask for your perceptions of other students’ behaviors regarding alcohol and substance use. Please provide your best guess.”

In the past 30 days, about what percent of students at your school smoked cigarettes?

1=______ %

[force numeric, 0-100]

Instructions for this item: “The next few items ask for your perceptions of other students’ behaviors regarding alcohol and substance use. Please provide your best guess.”

In the past 30 days, about what percent of students at your school smoked (or otherwise used) marijuana?

1=______ %

[force numeric, 0-100]

Instructions for this item: “The next few items ask for your perceptions of other students’ behaviors regarding alcohol and substance use. Please provide your best guess.”

How much do you agree with the following statement?:

Alcohol use is a problem for students on my campus.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Sleep habits

During this school year, at approximately what time have you typically gone to sleep on:

Weeknights?

1=12:00pm

2=1:00pm

3=2:00pm

4=3:00pm

5=4:00pm

6=5:00pm

7=6:00pm

8=7:00pm

9=8:00pm

10=9:00pm

11=10:00pm

12=11:00pm

13=12:00am

14=1:00am

15=2:00am

16=3:00am

17=4:00am

18=5:00am

19=6:00am

20=7:00am

21=8:00am

22=9:00am

23=10:00am

24=11:00am

During this school year, at approximately what time have you typically gone to sleep on:

Weekend nights?

1=12:00pm

2=1:00pm

3=2:00pm

4=3:00pm

5=4:00pm

6=5:00pm

7=6:00pm

8=7:00pm

9=8:00pm

10=9:00pm

11=10:00pm

12=11:00pm

13=12:00am

14=1:00am

15=2:00am

16=3:00am

17=4:00am

18=5:00am

19=6:00am

20=7:00am

21=8:00am

22=9:00am

23=10:00am

24=11:00am

During this school year, at approximately what time have you typically woken up on:

Weekdays?

1=12:00pm

2=1:00pm

3=2:00pm

4=3:00pm

5=4:00pm

6=5:00pm

7=6:00pm

8=7:00pm

9=8:00pm

10=9:00pm

11=10:00pm

12=11:00pm

13=12:00am

14=1:00am

15=2:00am

16=3:00am

17=4:00am

18=5:00am

19=6:00am

20=7:00am

21=8:00am

22=9:00am

23=10:00am

24=11:00am

During this school year, at approximately what time have you typically woken up on:

Weekend days?

1=12:00pm

2=1:00pm

3=2:00pm

4=3:00pm

5=4:00pm

6=5:00pm

7=6:00pm

8=7:00pm

9=8:00pm

10=9:00pm

11=10:00pm

12=11:00pm

13=12:00am

14=1:00am

15=2:00am

16=3:00am

17=4:00am

18=5:00am

19=6:00am

20=7:00am

21=8:00am

22=9:00am

23=10:00am

24=11:00am

During this school year, on how many days have you taken naps during a typical week?

1=I don't take naps.

2=1

3=2

4=3

5=4

6=5

7=6

8=7

How long is your typical nap?

1=Less than 1 hour

2=Between 1 and 2 hours

3=Between 2 and 3 hours

4=More than 3 hours

Insomnia severity

Difficulty falling asleep

1=None

2=Mild

3=Moderate

4=Severe

5=Very severe

Insomnia Severity Index

(Morin et al., 2011)

Instruction for this item: “Please rate the current (i.e., last 2 weeks) severity of your insomnia problem(s).”

Guidelines for scoring: Add the scores for all 7 items (questions 1 (-1) + 2 (-1) + 3 (-1) + 4 (-1) + 5 (-1) + 6 (-1) + 7 (-1))

>11=Refresh cut-off

Difficulty staying asleep

1=None

2=Mild

3=Moderate

4=Severe

5=Very severe

Insomnia Severity Index

(Morin et al., 2011)

Instruction for this item: “Please rate the current (i.e., last 2 weeks) severity of your insomnia problem(s).”

Guidelines for scoring: Add the scores for all 7 items (questions 1 (-1) + 2 (-1) + 3 (-1) + 4 (-1) + 5 (-1) + 6 (-1) + 7 (-1))

>11=Refresh cut-off

Problem waking up too early

1=None

2=Mild

3=Moderate

4=Severe

5=Very severe

Insomnia Severity Index

(Morin et al., 2011)

Instruction for this item: “Please rate the current (i.e., last 2 weeks) severity of your insomnia problem(s).”

Guidelines for scoring: Add the scores for all 7 items (questions 1 (-1) + 2 (-1) + 3 (-1) + 4 (-1) + 5 (-1) + 6 (-1) + 7 (-1))

>11=Refresh cut-off

How satisfied/dissatisfied are you with your current sleep pattern?

1=Very satisfied

2=Satisfied

3=Moderately satisfied

4=Dissatisfied

5=Very dissatisfied

Insomnia Severity Index

(Morin et al., 2011)

Guidelines for scoring: Add the scores for all 7 items (questions 1 (-1) + 2 (-1) + 3 (-1) + 4 (-1) + 5 (-1) + 6 (-1) + 7 (-1))

>11=Refresh cut-off

How noticeable to others do you think your sleep problem is in terms of impairing the quality of your life?

1=Not at all noticeable

2=A little

3=Somewhat

4=Much

5=Very much noticeable

Insomnia Severity Index

(Morin et al., 2011)

Guidelines for scoring: Add the scores for all 7 items (questions 1 (-1) + 2 (-1) + 3 (-1) + 4 (-1) + 5 (-1) + 6 (-1) + 7 (-1))

>11=Refresh cut-off

How worried/distressed are you about a current sleep problem?

1=Not at all worried

2=A little

3=Somewhat

4=Much

5=Very much worried

Insomnia Severity Index

(Morin et al., 2011)

Guidelines for scoring: Add the scores for all 7 items (questions 1 (-1) + 2 (-1) + 3 (-1) + 4 (-1) + 5 (-1) + 6 (-1) +

2=Between 1 and 2 hours

3=Between 2 and 3 hours

4=More than 3 hours

Insomnia severity

Difficulty falling asleep

1=None

2=Mild

3=Moderate

4=Severe

5=Very severe

Insomnia Severity Index

(Morin et al., 2011)

Instruction for this item: “Please rate the current (i.e., last 2 weeks) severity of your insomnia problem(s).”

Guidelines for scoring: Add the scores for all 7 items (questions 1 (-1) + 2 (-1) + 3 (-1) + 4 (-1) + 5 (-1) + 6 (-1) + 7 (-1))

>11=Refresh cut-off

Difficulty staying asleep

1=None

2=Mild

3=Moderate

4=Severe

5=Very severe

Insomnia Severity Index

(Morin et al., 2011)

Instruction for this item: “Please rate the current (i.e., last 2 weeks) severity of your insomnia problem(s).”

Guidelines for scoring: Add the scores for all 7 items (questions 1 (-1) + 2 (-1) + 3 (-1) + 4 (-1) + 5 (-1) + 6 (-1) + 7 (-1))

>11=Refresh cut-off

Problem waking up too early

1=None

2=Mild

3=Moderate

4=Severe

5=Very severe

Insomnia Severity Index

(Morin et al., 2011)

Instruction for this item: "Please rate the current (i.e., last 2 weeks) severity of your insomnia problem(s)."

Guidelines for scoring: Add the scores for all 7 items (questions 1 (-1) + 2 (-1) + 3 (-1) + 4 (-1) + 5 (-1) + 6 (-1) + 7 (-1))

>11=Refresh cut-off

How satisfied/dissatisfied are you with your current sleep pattern?

1=Very satisfied

2=Satisfied

3=Moderately satisfied

4=Dissatisfied

5=Very dissatisfied

Insomnia Severity Index

(Morin et al., 2011)

Guidelines for scoring: Add the scores for all 7 items (questions 1 (-1) + 2 (-1) + 3 (-1) + 4 (-1) + 5 (-1) + 6 (-1) + 7 (-1))

>11=Refresh cut-off

How noticeable to others do you think your sleep problem is in terms of impairing the quality of your life?

1=Not at all noticeable

2=A little

3=Somewhat

4=Much

5=Very much noticeable

Insomnia Severity Index

(Morin et al., 2011)

Guidelines for scoring: Add the scores for all 7 items (questions 1 (-1) + 2 (-1) + 3 (-1) + 4 (-1) + 5 (-1) + 6 (-1) + 7 (-1))

>11=Refresh cut-off

How worried/distressed are you about a current sleep problem?

1=Not at all worried

2=A little

3=Somewhat

4=Much

5=Very much worried

Insomnia Severity Index

(Morin et al., 2011)

Guidelines for scoring: Add the scores for all 7 items (questions 1 (-1) + 2 (-1) + 3 (-1) + 4 (-1) + 5 (-1) + 6 (-1) +

7 (-1))

>11=Refresh cut-off

To what extent do you consider a sleep problem to interfere with your daily functioning (e.g., daytime fatigue, mood, ability to function at work/daily chores, concentration, memory, etc.) currently?

1=Not at all interfering

2=A little

3=Somewhat

4=Much

5=Very much interfering

Insomnia Severity Index

(Morin et al., 2011)

Guidelines for scoring: Add the scores for all 7 items (questions 1 (-1) + 2 (-1) + 3 (-1) + 4 (-1) + 5 (-1) + 6 (-1) + 7 (-1))

>11=Refresh cut-off

Weight concerns

How much more or less do you feel you worry about your weight and body shape than [other women/men/peers] your age?

1=I worry a lot less than [other women/men/my peers].

2=I worry a little less than [other women/men/my peers].

3=I worry about the same as [other women/men/my peers].

4=I worry a little more than [other women/men/my peers].

5=I worry a lot more than [other women/men/my peers].

Weight Concerns Scale (WCS)

(Killen et al., 1994; Killen et al., 1996)

How afraid are you of gaining 3 pounds?

1=Not afraid of gaining

2=Slightly afraid of gaining

3=Moderately afraid of gaining

4=Very afraid of gaining

5=Terrified of gaining

Weight Concerns Scale (WCS)

(Killen et al., 1994; Killen et al., 1996)

When was the last time you went on a diet?

1=I've never been on a diet.

2=I was on a diet about 1 year ago.

3=I was on a diet about 6 months ago.

4=I was on a diet about 3 months ago.

5=I was on a diet about 1 month ago.

6=I was on a diet less than 1 month ago.

7=I'm now on a diet.

Weight Concerns Scale (WCS)

(Killen et al., 1994; Killen et al., 1996)

Compared to other things in your life, how important is your weight to you?

1=My weight is not important compared to other things in my life.

2=My weight is a little more important than some other things in my life.

3=My weight is more important than most, but not all, things in my life.

4=My weight is the most important thing in my life.

Weight Concerns Scale (WCS)

(Killen et al., 1994; Killen et al., 1996)

Do you ever feel fat?

1=Never

2=Rarely

3=Sometimes

4=Often

5=Always

Weight Concerns Scale (WCS)

(Killen et al., 1994; Killen et al., 1996)

Do you need to be very thin in order to feel good about yourself?

1=Yes

0=No

I think I am…

1=Very underweight

2=Somewhat underweight

3=Normal weight

4=Somewhat overweight

5=Very overweight

How much do you agree with the following statement?:

I have become more concerned about my body shape and weight since I began as a student at my school.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

I am worried about gaining the "freshman fifteen".

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Height/weight

About how often do you weigh yourself?

1=Never

2=Less than once per month

3=Once per month

4=2 to 3 times per month

5=Once per week

6=2 to 3 times per week

7=4 to 6 times per week

8=Once per day

9=More than once per day

What is your current height?

(If you don’t know, please provide your best guess.)

1=______ feet

[force numeric, <7]

2=______ inches

[force numeric, <11]

What is your current weight?

(If you don’t know, please provide your best guess.)

1=______ pounds

[force numeric]

What would your ideal weight be if you could choose it?

1=______ pounds (please specify)

[force numeric]

2=I don’t have an ideal weight for myself

Eating disorder symptoms

Do you ever make yourself sick because you feel uncomfortably full?

1=Yes

0=No

SCOFF questionnaire

(Morgan, Reid, & Lacey, 1999)

Instructions for this item: “Please answer the following questions as honestly as possible.”

Do you worry that you have lost control over how much you eat?

1=Yes

0=No

SCOFF questionnaire

(Morgan, Reid, & Lacey, 1999)

Instructions for this item: “Please answer the following questions as honestly as possible.”

Have you recently lost more than 15 pounds in a 3-month period?

1=Yes

0=No

SCOFF questionnaire

(Morgan, Reid, & Lacey, 1999)

Instructions for this item: “Please answer the following questions as honestly as possible.”

Do you believe yourself to be fat when others say you are too thin?

1=Yes

0=No

SCOFF questionnaire

(Morgan, Reid, & Lacey, 1999)

Instructions for this item: “Please answer the following questions as honestly as possible.”

Would you say that food dominates your life?

1=Yes

0=No

SCOFF questionnaire

(Morgan, Reid, & Lacey, 1999)

Instructions for this item: “Please answer the following questions as honestly as possible.”

Binging and purging

Over the past 4 weeks (28 days), on how many days have you eaten an unusually large amount of food and have had a sense of loss of control at the time?

Range: 0-28 days

Eating Disorder Examination Questionnaire (EDE-Q)

(Fairburn, Cooper, & O’Connor, 2008)

Over the past 4 weeks (28 days), how many times have you made yourself sick (vomit) as a means of controlling your shape or weight?

[open text]

Eating Disorder Examination Questionnaire (EDE-Q)

(Fairburn, Cooper, & O’Connor, 2008)

Over the past 4 weeks (28 days), how many times have you taken laxatives as a means of controlling your shape or weight?

[open text]

Eating Disorder Examination Questionnaire (EDE-Q)

(Fairburn, Cooper, & O’Connor, 2008)

Over the past 4 weeks (28 days), how many times have you taken diuretics (water pills) or diet pills as a means of controlling your shape or weight?

[open text]

Eating Disorder Examination Questionnaire (EDE-Q)

(Fairburn, Cooper, & O’Connor, 2008)

Over the past 4 weeks (28 days), how many times have you exercised in a “driven” or “compulsive” way as a means of controlling your weight, shape or amount of fat, or to burn off calories?

[open text]

Eating Disorder Examination Questionnaire (EDE-Q)

(Fairburn, Cooper, & O’Connor, 2008)

Over the past 4 weeks (28 days), how many times have you fasted (intentionally not eaten anything at all for at least 8 waking hours)?

[open text]

Eating Disorder Examination Questionnaire (EDE-Q)

(Fairburn, Cooper, & O’Connor, 2008)

Eating habits

For about what percentage of the last 12 months were you on a diet?

1=More than 75% (more than 270 days total)

2=Between 50% and 75% (180 to 270 days total)

3=Between 25% and 49% (90 to 179 days total)

4=Less than 25% (1 to 90 days total)

5=I was not on a diet at all in the last 12 months.

How much do you agree with the following statement?:

My eating habits have changed a lot since I began as a student at my school.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How have your eating habits changed since you began as a student at your school?

(Select all that apply)

1=I think about food more often.

2=I think about food less often.

3=I am more concerned about what I eat.

4=I am less concerned about what I eat.

5=I consume more calories on average per day.

6=I consume fewer calories on average per day.

7=I eat more junk food/fast food.

8=I eat less junk food/fast food.

9=I eat more junk food late at night.

10=I eat more fruits/vegetables.

11=I eat less fruits/vegetables.

12=I became a vegetarian/vegan.

13=I began limiting (or increased the extent to which I limit) the quantity or types of foods and drinks I consume in order to influence my body shape or weight.

14=I began purging (vomiting, using laxatives, diet pills etc.).

15=Other (please specify)

Perception of peers

Do you know at least 1 student at your school who you suspect has an eating disorder?

1=Yes

0=No

Perceptions of leadership, policies, and reporting

If someone were to report a sexual assault to a campus authority, how likely is it that your school would take the report seriously?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that your school would keep knowledge of the report limited to those who need to know in order for your school to respond properly?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that your school would forward the report outside the campus to criminal investigators?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that your school would take steps to protect the safety of the person making the report?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that your school would support the person making the report?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that your school would take corrective action to address factors that may have led to the sexual assault?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that your school would take corrective action against the offender?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that your school would take steps to protect the person making the report from retaliation?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that students would label the person making the report as a troublemaker?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that students would support the person making the report?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that the alleged offender(s) or their associates would retaliate against the person making the report?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that the educational achievement/career of the person making the report would suffer?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Perceptions of leadership, policies, and reporting

If someone were to report a sexual assault to a campus authority, how likely is it that your school would take the report seriously?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that your school would keep knowledge of the report limited to those who need to know in order for your school to respond properly?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that your school would forward the report outside the campus to criminal investigators?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that your school would take steps to protect the safety of the person making the report?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that your school would support the person making the report?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that your school would take corrective action to address factors that may have led to the sexual assault?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that your school would take corrective action against the offender?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that your school would take steps to protect the person making the report from retaliation?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that students would label the person making the report as a troublemaker?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that students would support the person making the report?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that the alleged offender(s) or their associates would retaliate against the person making the report?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If someone were to report a sexual assault to a campus authority, how likely is it that the educational achievement/career of the person making the report would suffer?

1=Very likely

2=Moderately likely

3=Slightly likely

4=Not at all likely

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Sexual violence and sexual assault

Have you received training in policies and procedures regarding incidents of sexual assault (e.g., what is defined as sexual assault, how to report an incident, confidential resources, procedures for investigating)?

1=Yes

0=No

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Have you received training in prevention of sexual assault?

1=Yes

0=No

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

How useful did you think the training was?

1=Very

2=Moderately

3=Somewhat

4=Slightly

5=Not useful

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

If a friend or I were sexually assaulted, I know where to go to get help.

1=Strongly agree

2=Agree

3=Neither agree nor disagree

4=Disagree

5=Strongly disagree

6=Don't know

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instruction for this item: "Please indicate your level of agreement to the following statements:"

I understand my school's formal procedures to address complains of sexual assault.

1=Strongly agree

2=Agree

3=Neither agree nor disagree

4=Disagree

5=Strongly disagree

6=Don't know

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instruction for this item: "Please indicate your level of agreement to the following statements:"

I have confidence that my school administers the formal procedures to address complaints of sexual assault fairly.

1=Strongly agree

2=Agree

3=Neither agree nor disagree

4=Disagree

5=Strongly disagree

6=Don't know

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instruction for this item: "Please indicate your level of agreement to the following statements:"

Forced touching of a sexual nature (forced kissing, touching of private parts, grabbing, fondling, rubbing up against you in a sexual way, even if it was over your clothes)

1=Yes

0=No

Adapted from Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for this item: "This section asks about nonconsensual or unwanted sexual contact you may have experienced since beginning at your school. The person with whom you had the unwanted sexual contact could have been a stranger or someone you know, such as a family member or someone you were dating or going out with. Please indicate if you have experienced any of the following five types of unwanted sexual contact:"

Oral sex (someone's mouth or tongue making contact with your genitals or your mouth or tongue making contact with someone else's genitals)

1=Yes

0=No

Adapted from Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for this item: "This section asks about nonconsensual or unwanted sexual contact you may have experienced since beginning at your school. The person with whom you had the unwanted sexual contact could have been a stranger or someone you know, such as a family member or someone you were dating or going out with. Please

indicate if you have experienced any of the following five types of unwanted sexual contact:"

Sexual intercourse (someone's penis being put in your vagina or anus)

1=Yes

0=No

Adapted from Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for this item: "This section asks about nonconsensual or unwanted sexual contact you may have experienced since beginning at your school. The person with whom you had the unwanted sexual contact could have been a stranger or someone you know, such as a family member or someone you were dating or going out with.

Please indicate if you have experienced any of the following five types of unwanted sexual contact:"

Anal sex (someone's penis being put in your anus)

1=Yes

0=No

Adapted from Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for this item: "This section asks about nonconsensual or unwanted sexual contact you may have experienced since beginning at your school. The person with whom you had the unwanted sexual contact could have been a stranger or someone you know, such as a family member or someone you were dating or going out with. Please indicate if you have experienced any of the following five types of unwanted sexual contact:"

Sexual penetration with a finger or object (someone putting their finger or an object like a bottle or a candle in your vagina or anus)

1=Yes

0=No

Adapted from Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for this item: "This section asks about nonconsensual or unwanted sexual contact you may have experienced since beginning at your school. The person with

whom you had the unwanted sexual contact could have been a stranger or someone you know, such as a family member or someone you were dating or going out with. Please indicate if you have experienced any of the following five types of unwanted sexual contact:"

Has anyone had sexual contact with you by using physical force or threatening to physically harm you?

1=Yes

0=No

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for these items: "The questions below ask about unwanted sexual contact that involved force or threats of force against you since you began at your school. Force could include someone holding you down with his or her body weight, pinning your arms, hitting or kicking you, or using or threatening to use a weapon against you."

Has anyone attempted but not succeeded in having sexual contact with you by using or threatening to use physical force against you?

1=Yes

0=No

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for these items: "The questions below ask about unwanted sexual contact that involved force or threats of force against you since you began at your school. Force could include someone holding you down with his or her body weight, pinning your arms, hitting or kicking you, or using or threatening to use a weapon against you."

Since beginning at your school, has someone had sexual contact with you when you were unable to provide consent or stop what was happening because you were passed out, drugged, drunk, incapacitated, or asleep?

1=Yes, I am certain this has happened.

2=I suspect this has happened but am not certain.

3=No, this has not happened.

Adapted from Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for this item: “The next question asks about your experiences with unwanted sexual contact while you were unable to provide consent or stop what was happening you were passed out, drugged, drunk, incapacitated or asleep. These situations might include times that you voluntarily consumed alcohol or drugs and times that you were given drugs without your knowledge or consent.”

When the person had sexual contact with you by using or threatening you with physical force, which of the following happened?

(Select all that apply)

1=Forced touching of a sexual nature

2=Oral sex

3=Sexual intercourse

4=Anal sex

5=Sexual penetration with a finger or object

6=Other (please specify)

Adapted from Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for this item: “Earlier you indicated that since beginning at your school, someone has had sexual contact with you by using physical force or threatening to physically harm you. The question below asks about that experience.”

When the person had sexual contact with you when you were unable to provide consent or stop what was happening because you were passed out, drugged, drunk, incapacitated, or asleep, which of the following happened?

(Select all that apply)

1=Forced touching of a sexual nature

2=Oral sex

3=Sexual intercourse

4=Anal sex

5=Sexual penetration with a finger or object

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for this item: “Earlier you indicated that since beginning at your school, someone has had sexual contact with you when you were unable to provide consent or stop what was happening because you were passed out, drugged, drunk, incapacitated, 6= Other (please specify)

7=Don’t know

[mutually exclusive]

or asleep. The questions below ask about that experience.”

Just prior to the incident(s), had you been drinking alcohol?

1=Yes

0=No

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for this item: “Earlier you indicated that since beginning at your school, someone has had sexual contact with you when you were unable to provide consent or stop what was happening because you were passed out, drugged, drunk, incapacitated, or asleep. The questions below ask about that experience. Keep in mind that you are in no way responsible for the assault that occurred, even if you had been drinking.”

Were you drunk?

1=Yes

0=No

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for this item: “Earlier you indicated that since beginning at your school, someone has had sexual contact with you when you were unable to provide consent or stop what was happening because you were passed out, drugged, drunk, incapacitated, or asleep. The questions below ask about that experience.”

Just prior to the incident(s), had you voluntarily been taking or using any drugs other than alcohol?

1=Yes

0=No

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for this item: “Earlier you indicated that since beginning at your school, someone has had sexual contact with you when you were unable to provide consent or stop what was happening because you were passed out, drugged, drunk, incapacitated, or asleep. The questions below ask about that experience.”

Just prior to the incident(s), had you been given a drug without your knowledge or consent?

1=Yes

2=No

3=Don’t know

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for this item: “Earlier you indicated that since beginning at your school, someone has had sexual contact with you when you were unable to provide consent or stop what was happening because you were passed out, drugged, drunk, incapacitated, or asleep. The questions below ask about that experience.”

Context and disclosure

Whom did the unwanted behavior involve?

(Select all that apply)

1=Stranger

2=Family member

3=Acquaintance

4=Coworker

5=Employer/supervisor

6=College professor/instructor

7=College staff

8=Non-romantic friend

9=Casual or firs date

10=Current romantic partner

11=Ex-romantic partner

12=Other (please specify)

Adapted from Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for these items: “For the next set of questions, please pick the most serious incident if you had more than one, and answer the questions below about this experience.”

Was this person a student at your school?

1=Yes

2=No

3=Don’t know

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for these items: “For the next set of questions, please pick the most serious incident if you had more than one, and answer the questions below about this experience.”

Was this person affiliated with your school as an employee, staff, or faculty member?

1=Yes

2=No

3=Don’t know

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for these items: “For the next set of questions, please pick the most serious incident if you had more than one, and answer the questions below about this experience.”

What was the gender of the individual who did this to you?

1=Man

2=Woman

3=Another gender identity (please specify)

4=Don't know

Adapted from Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for these items: "For the next set of questions, please pick the most serious incident if you had more than one, and answer the questions below about this experience."

Did the incident involve any of the following?

(Select all that apply)

1=The other person's use of alcohol

2=Your use of alcohol

3=The other person's use of drugs

4=Your use of drugs

5=None of the above

[mutually exclusive]

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for these items: "For the next set of questions, please pick the most serious incident if you had more than one, and answer the questions below about this experience."

How frightened were you by the incident?

1=Extremely frightened

2=Somewhat frightened

3=Only a little frightened

4=Not at all frightened

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for these items: "For the next set of questions, please pick the most serious incident if you had more than one, and answer the questions below about this experience."

Where did the incident occur?

(Select all that apply)

1=Off-campus

2=On-campus

Adapted from Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for these items: “For the next set of questions, please pick the most serious incident if you had more than one, and answer the questions below about this experience.”

Whom did you tell about the incident?

(Select all that apply)

1=No one

[mutually exclusive]

2=Roommate

3=Close friend other than roommate

4=Parent or guardian

5=Other family member

6=Counselor

7=Faculty or staff

8=Residence hall staff

9=Police

10=Romantic partner (other than the one who did this to you)

11=Campus sexual assault advocate

12=Other (please specify)

Adapted from Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for these items: “For the next set of questions, please pick the most serious incident if you had more than one, and answer the questions below about this experience.”

Did you use your school’s formal procedures to report the incident(s)?

1=Yes

0=No

Adapted from Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for these items: “For the next set of questions, please pick the most serious incident if you had more than one, and answer the questions below about this experience.”

Did your school’s formal procedures help you deal with the problem?

1=Didn’t help me at all

2=Helped me a little

3=Helped, but could have helped more

4=Helped me a lot

5=Completely solved the problem

Not Alone: The First Report of the White House Task Force to Protect Students From Sexual Assault (2014)

Instructions for these items: “For the next set of questions, please pick the most serious incident if you had more than one, and answer the questions below about this experience.”

Why did you not tell anyone?

(Select all that apply)

1=Ashamed/embarrassed

2=Is a private matter-wanted to deal with it on own

3=Concerned others would find out

Adapted from Not Alone: The First Report of the White House Task Force to Protect Students

From Sexual Assault (2014)

Instructions for these items: “For the next set of questions, please pick the most 4=Didn’t want the person who did it to get in trouble

5=Fear of retribution from the person who did it

6=Fear of not being believed

7=Thought I would be blamed for what happened

8=Didn’t think what happened was serious enough to talk about

9=Didn’t think others would think it was serious

10=Thought people would try to tell me what to do

11=Would feel like an admission of failure

12=Didn’t think others would think it was important

13=Didn’t think others would understand

14=Didn’t have time to deal with it due to academics, work, etc.

15=Didn’t know reporting procedure on campus

16=Feared I or another would be punished for infractions or violations (such as underage drinking)

17=Did not feel the campus leadership would solve my problems

18=Feared others would harass me or react negatively toward me

19=Thought nothing would be done

20=Didn’t want others to worry about me

21=Wanted to forget it happened

22=Had other things I needed to focus on and was concerned about (classes, work)

23=Didn’t think the school would do anything about my report

24=Other (please specify)

serious incident if you had more than one, and answer the questions below about this experience.”

Stalking

In the past 12 months, have you experienced stalking (e.g., someone waiting for you outside of your home, classroom, or workplace; repeated unwanted emails/phone calls)?

1=Yes

0=No

4=Didn’t want the person who did it to get in trouble

5=Fear of retribution from the person who did it

6=Fear of not being believed

7=Thought I would be blamed for what happened

8=Didn't think what happened was serious enough to talk about

9=Didn't think others would think it was serious

10=Thought people would try to tell me what to do

11=Would feel like an admission of failure

12=Didn't think others would think it was important

13=Didn't think others would understand

14=Didn't have time to deal with it due to academics, work, etc.

15=Didn't know reporting procedure on campus

16=Feared I or another would be punished for infractions or violations (such as underage drinking)

17=Did not feel the campus leadership would solve my problems

18=Feared others would harass me or react negatively toward me

19=Thought nothing would be done

20=Didn't want others to worry about me

21=Wanted to forget it happened

22=Had other things I needed to focus on and was concerned about (classes, work)

23=Didn't think the school would do anything about my report

24=Other (please specify)

serious incident if you had more than one, and answer the questions below about this experience."

Stalking

In the past 12 months, have you experienced stalking (e.g., someone waiting for you outside of your home, classroom, or workplace; repeated unwanted emails/phone calls)?

1=Yes

0=No

4=Didn't want the person who did it to get in trouble

5=Fear of retribution from the person who did it

6=Fear of not being believed

7=Thought I would be blamed for what happened

8=Didn’t think what happened was serious enough to talk about

9=Didn’t think others would think it was serious

10=Thought people would try to tell me what to do

11=Would feel like an admission of failure

12=Didn’t think others would think it was important

13=Didn’t think others would understand

14=Didn’t have time to deal with it due to academics, work, etc.

15=Didn’t know reporting procedure on campus

16=Feared I or another would be punished for infractions or violations (such as underage drinking)

17=Did not feel the campus leadership would solve my problems

18=Feared others would harass me or react negatively toward me

19=Thought nothing would be done

20=Didn’t want others to worry about me

21=Wanted to forget it happened

22=Had other things I needed to focus on and was concerned about (classes, work)

23=Didn’t think the school would do anything about my report

24=Other (please specify)

serious incident if you had more than one, and answer the questions below about this experience.”

Stalking

In the past 12 months, have you experienced stalking (e.g., someone waiting for you outside of your home, classroom, or workplace; repeated unwanted emails/phone calls)?

1=Yes

0=No

Perceived health status

Overall, how you would describe your health?

1=Excellent

2=Good

3=Fair

4=Poor

5=Very poor

Chronic disease

Have you ever been diagnosed with any of the following health conditions, which required ongoing treatment by a health care professional (i.e., chronic diseases)?

(Select all that apply)

1=Diabetes

2=High blood pressure

3=Asthma

4=Thyroid disease (e.g., hypothyroid or hyperthyroid)

5=Gastrointestinal disease (e.g., Crohn's Disease, Ulcerative Colitis)

6=Arthritis

7=Sickle cell anemia

8=Seizure disorders (e.g., epilepsy)

9=Cancers

10=High cholesterol

11=Other chronic disease (please specify)

12=No, never been diagnosed with a chronic disease.

[mutually exclusive]

13=Don't know

Exercise

In the past 30 days, about how many hours per week on average did you spend exercising?

(Include any exercise of moderate or higher intensity, where “moderate intensity” would be roughly equivalent to brisk walking or bicycling)

1=Less than 1 hour

2=2-3 hours

3=3-4 hours

4=5 or more hours

How much do you agree with the following statement?:

My exercise habits have changed a lot since I began as a student at my school.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How have your exercise habits changed since you began as a student at your school?

1=I exercise more now.

2=I exercise less now.

3=Other (please specify)

Nutrition

Do the following eating practices apply to you?:

I am a vegetarian.

1=Yes

0=No

Do the following eating practices apply to you?:

I am vegan.

1=Yes

0=No

Do the following eating practices apply to you?:

I eat raw food (most of or all the time).

1=Yes

0=No

Compared to other reasons for [being a vegetarian/being vegan/eating raw food most of or all the time], how important is a desire to influence your body shape or weight?

1=Very important

2=Important

3=Somewhat important

4=Not important

How many servings of fruits and vegetables do you usually have per day?

(1 serving is 1 medium piece of fruit, 1 cup raw leafy vegetables, ½ cup fresh/frozen/canned fruits/vegetables, ¾ cup fruit/vegetable juice, or ¼ dried fruit)

1=0

2=1-2

3=3-4

4=5 or more

Definition from American Heart Association 2014

Sexual health

With how many people have you had oral sex, vaginal intercourse, or anal intercourse in

1=0

and behavior

the past 12 months?

2=1

3=2

4=3

5=4

6=5-9

7=10 or more

In the past 12 months, did you have sexual partner(s) who were female?

1=Yes

0=No

In the past 12 months, did you have sexual partner(s) who were male?

1=Yes

0=No

In the past 12 months, did you have sexual partner(s) who were transgender?

1=Yes

0=No

In the past 30 days, with how many people have you had oral sex, vaginal intercourse, or anal intercourse?

1=0

2=1

3=2

4=3 or more

In the past 30 days, did you have oral sex?

1=Yes

2=No

3=Don't know

In the past 30 days, did you have vaginal intercourse?

1=Yes

2=No

3=Don't know

In the past 30 days, did you have anal intercourse?

1=Yes

2=No

3=Don’t know

In the past 30 days, what type of birth control method did you or your partner use during your last sexual intercourse experience?

(Select all that apply)

1=Male condom

2=Withdrawal (i.e., “pulling out”)

3=Contraceptive pills

4=Contraceptive patch

5=Contraceptive ring (e.g., Nuvaring)

6=Contraceptive injectable (e.g., Depo-Provera shot)

7=Intrauterine device (IUD)

8=Contraceptive implant (e.g., implanon/nexplanon)

9=Emergency contraception (i.e., “morning after pill”)

10=Other contraceptive method (please specify)

11=No contraceptive method was used.

[mutually exclusive]

12=Don’t know

In the past 30 days, did you or your partner(s) use some form of birth control or protection (e.g. condoms, birth control pills) every single time you had sex?

1=Yes

2=No

3=Don’t know

Have you or a sexual partner (current or past) ever become pregnant?

(Select all that apply)

1=No [mutually exclusive]

2=Yes, unintentionally

3=Yes, intentionally

4=Don't know

Are you currently pregnant and/or have you given birth in the last 12 months?

1=Yes

0=No

Violence

In your lifetime, how many times has anyone struck or physically injured you?

1=Never

2=1 time

3=2-3 times

4=4-5 times

5=More than 5 times

When was the last time anyone has struck or physically injured you?

1=Within the last 2 weeks

2=Within the last month

3=Within the last year

4=Within the last 1-5 years

5=More than 5 years ago

Display if previous question answered with anything other than "Never"

Over the past 12 months, did you strike or physically injure anyone?

1=Yes

0=No

Sexual assault

Over the past 12 months, have you experienced emotional, physical, or sexual abuse (either from someone you know or don't know)?

1=Yes

0=No

Included if ‘Sexual Assault’ module not selected

Over the past 12 months, were you emotionally abused?

(Examples include being called names, being yelled at, humiliated, judged, threatened, coerced, or controlled.)

1=Yes

0=No

Included if ‘Sexual Assault’ module not selected

Over the past 12 months, were you physically abused?

(Examples include being kicked, slapped, punched or otherwise physically mistreated.)

1=Yes

0=No

Included if ‘Sexual Assault’ module not selected

Over the past 12 months, were you in a sexually abusive relationship?

(By ‘sexually abusive relationship’, we mean one in which an intimate partner forced or coerced you to perform or receive sexual acts, or forced you to have intercourse when you didn’t want to.)

1=Yes

0=No

Included if ‘Sexual Assault’ module not selected

Over the past 12 months, were you ever forced to have unwanted sexual intercourse through the use of physical force or threat by someone who was not an intimate partner?

(By ‘sexual intercourse’, we mean completed or attempted penetration.)

1=Yes

0=No

Included if ‘Sexual Assault’ module not selected

Definition from CDC NISVS 2010

Substance use

Over the past 2 weeks, did you drink any alcohol?

1=Yes

0=No

Included if 'Substance Use' module not selected

Over the past 2 weeks, about how many times did you have 4 [female]/5 [male]/4 or 5 [not female or male] or more alcoholic drinks in a row?

(1 drink is a can of beer, a glass of wine, a wine cooler, a shot of liquor, or a mixed drink.)

1=0 times

2=1 time

3=2 times

4=3 to 5 times

5=6 to 9 times

6=10 or more times

7=Don't know

Included if 'Substance Use' module not selected

Definition adapted from National Institute on Alcohol Abuse and Alcoholism

Over the past 30 days, about how many cigarettes did you smoke per day?

1=0 cigarettes

2=Less than 1 cigarette

3=1 to 5 cigarettes

4=About one-half pack

5=1 or more packs

Included if 'Substance Use' module not selected

Over the past 30 days, have you used any of the following drugs?

(Select all that apply)

1=Marijuana

2=Cocaine (any form, including crack, powder, or freebase)

3=Heroin

4=Methamphetamines (also known as speed, crystal meth, or ice)

5=Other stimulants (such as Ritalin, Adderall) without a prescription

6=Ecstasy

7=Other drugs without a prescription (please specify)

8=No, none of these

[mutually exclusive]

Included if ‘Substance Use’ module not selected

Sleep

During this school year, at approximately what time have you typically gone to sleep on:

Weeknights?

1=12:00pm

2=1:00pm

3=2:00pm

4=3:00pm

5=4:00pm

Included if ‘Sleep’ module not selected

6=5:00pm

7=6:00pm

8=7:00pm

9=8:00pm

10=9:00pm

11=10:00pm

12=11:00pm

13=12:00am

14=1:00am

15=2:00am

16=3:00am

17=4:00am

18=5:00am

19=6:00am

20=7:00am

21=8:00am

22=9:00am

23=10:00am

24=11:00am

During this school year, at approximately what time have you typically gone to sleep on:

Weekend nights?

1=12:00pm

2=1:00pm

3=2:00pm

4=3:00pm

5=4:00pm

6=5:00pm

7=6:00pm

8=7:00pm

9=8:00pm

10=9:00pm

11=10:00pm

12=11:00pm

13=12:00am

14=1:00am

15=2:00am

16=3:00am

17=4:00am

18=5:00am

19=6:00am

20=7:00am

21=8:00am

22=9:00am

23=10:00am

24=11:00am

Included if ‘Sleep’ module not selected

During this school year, at approximately what time have you typically woken up on:

Weekdays?

1=12:00pm

2=1:00pm

3=2:00pm

4=3:00pm

5=4:00pm

6=5:00pm

7=6:00pm

8=7:00pm

9=8:00pm

10=9:00pm

11=10:00pm

12=11:00pm

13=12:00am

Included if ‘Sleep’ module not selected

14=1:00am

15=2:00am

16=3:00am

17=4:00am

18=5:00am

19=6:00am

20=7:00am

21=8:00am

22=9:00am

23=10:00am

24=11:00am

During this school year, at approximately what time have you typically woken up on:

Weekend days?

1=12:00pm

2=1:00pm

3=2:00pm

4=3:00pm

5=4:00pm

6=5:00pm

7=6:00pm

8=7:00pm

9=8:00pm

10=9:00pm

11=10:00pm

12=11:00pm

13=12:00am

14=1:00am

15=2:00am

16=3:00am

17=4:00am

18=5:00am

19=6:00am

20=7:00am

21=8:00am

22=9:00am

23=10:00am

24=11:00am

Included if ‘Sleep’ module not selected

During this school year, on how many days have you taken naps during a typical week?

1=I don’t take naps.

2=1

3=2

4=3

5=4

6=5

7=6

8=7

Included if ‘Sleep’ module not selected

How long is your typical nap?

1=Less than 1 hour

2=Between 1 and 2 hours

3=Between 2 and 3 hours

4=More than 3 hours

Included if ‘Sleep’ module not selected

Knowledge of mental illness and treatments

Relative to the average person, how knowledgeable are you about mental illnesses (such as depression and anxiety disorders) and their treatments?

1=Well above average

2=Above average

3=Average

4=Below average

5=Well below average

As far as you know, which of the following are generally considered highly effective treatments for depression?

(Select all that apply)

1=Cognitive behavioral therapy (CBT)

2=Antidepressant medication

3=Psychoanalysis

4=Psychostimulant medication (e.g., Ritalin)

As far as you know, which of the following are common symptoms of depression?

(Select all that apply)

1=Sleep changes (substantial increases or decreases)

2=Hallucinations or delusions

3=Appetite changes (substantial increases or decreases)

4=Reduced interest in usual activities

As far as you know, which of the following are considered to be effective self-help strategies for reducing anxiety?

(Select all that apply)

1=Physical exercise

2=Spending more time alone

3=Slow breathing exercises

4=Meditation

As far as you know, which of the following are common symptoms of eating disorders?

(Select all that apply)

1=Dramatic weight loss

2=Strong need for control

3=Restrictive eating/fasting

4=Self-induced vomiting, abuse of laxatives, diet pills and/or diuretics

5=Rapid, uninterruptible speech

6=Eating an unusually large amount of food while feeling out of control

How much do you agree with the following statement?:

I have a good idea of how to recognize that someone is in emotional or mental distress.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

I feel confident in helping someone with a mental health problem.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Have you ever participated in a mental health gatekeeper-training program?

(A program to enhance your skills to recognize signs of emotional distress in other people and refer them to appropriate resources. Examples include Mental Health First Aid, Question, Persuade, Refer (QPR), and At-Risk.)

1=Yes

0=No

Knowledge and perceptions of campus services

How much do you agree with the following statement?:

If I needed to seek professional help for my mental or emotional health, I would know where to go on my campus.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Knowledge of mental illness and treatments

Relative to the average person, how knowledgeable are you about mental illnesses (such as depression and anxiety disorders) and their treatments?

1=Well above average

2=Above average

3=Average

4=Below average

5=Well below average

As far as you know, which of the following are generally considered highly effective treatments for depression?

(Select all that apply)

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4=Self-induced vomiting, abuse of laxatives, diet pills and/or diuretics

5=Rapid, uninterruptible speech

6=Eating an unusually large amount of food while feeling out of control

How much do you agree with the following statement?:

I have a good idea of how to recognize that someone is in emotional or mental distress.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

I feel confident in helping someone with a mental health problem.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

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(A program to enhance your skills to recognize signs of emotional distress in other people and refer them to appropriate resources. Examples include Mental Health First Aid, Question, Persuade, Refer (QPR), and At-Risk.)

1=Yes

0=No

Knowledge and perceptions of campus services

How much do you agree with the following statement?:

If I needed to seek professional help for my mental or emotional health, I would know where to go on my campus.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Are you aware of mental health outreach efforts on your campus (such as educational programs, awareness events, anti-stigma campaigns, screening days)?

1=Yes

0=No

What have you heard from other students about the quality of mental health and psychological counseling services on your campus?

1=I have mostly heard negative opinions.

2=I have heard an even mix of negative and positive opinions.

3=I have mostly heard positive opinions.

4=I haven't heard anything.

How much do you agree with the following statement?:

There is a good support system on campus for students going through difficult times.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Beliefs about treatment efficacy

How helpful on average do you think medication is, when provided competently, for people your age who are clinically depressed?

1=Very helpful

2=Helpful

3=Somewhat helpful

4=Not helpful

How helpful on average do you think medication would be for you if you were having mental or emotional health problems?

1=Very helpful

2=Helpful

3=Somewhat helpful

4=Not helpful

How helpful on average do you think therapy or counseling is, when provided competently, for people your age who are clinically depressed?

1=Very helpful

2=Helpful

3=Somewhat helpful

4=Not helpful

How helpful on average do you think therapy or counseling would be for you if you were having mental or emotional health problems?

1=Very helpful

2=Helpful

3=Somewhat helpful

4=Not helpful

Identity, secrecy, and disclosure

How much do you agree with the following statement?:

I see myself as a person with mental illness.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

When I feel depressed or sad, I tend to keep those feelings to myself.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

Sometimes I feel ashamed of having a mental illness.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

Sometimes I keep my mental illness a secret.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

I wish I could disclose to others my mental illness.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Perceived stigma

How much do you agree with the following statement?:

Most people would willingly accept someone who has received mental health treatment as a close friend.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

Most people feel that receiving mental health treatment is a sign of personal failure.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

Most people think less of a person who has received mental health treatment.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Personal stigma

How much do you agree with the following statement?:

I would willingly accept someone who has received mental health treatment as a close friend.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

I feel that receiving mental health treatment is a sign of personal failure.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

I would think less of a person who has received mental health treatment.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Other factors

As far as you know, how many of your close friends or family have ever sought professional help for an emotional or mental health problem?

1=None

2=At least 1 or 2

3=3 or more

4=Don't know

Campus climate around upstanding

How much do you agree with the following statement?:

At my school, we are a campus where we look out for each other.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

I am responsible to help if a friend is struggling.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

I am responsible to help if a classmate is struggling.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Witnessing

In the past year, I have witnessed the following situations on my campus:

(Select all that apply)

1=Someone was drinking too much

2=Someone was at risk of being sexually assaulted

3=Someone was using hurtful language (e.g., bullying, sexist, racist, or homophobic comments)

4=Someone was experiencing significant emotional distress or thoughts of suicide

5=There was a physical altercation/fight

6=Other (please specify)

7=None of the above

[mutually exclusive]

Upstanding

How much do you agree with the following statement?:

If I saw someone was drinking too much, I would intervene (by trying to help).

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

If I saw someone was at risk of being sexually assaulted, I would intervene (by trying to help).

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

If I saw someone was using hurtful language (e.g., bullying, sexist, racist, or homophobic comments), I would intervene (by trying to help).

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

If I saw someone was experiencing significant emotional distress or thoughts of suicide, I would intervene (by trying to help).

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

In the past year, I have intervened (by trying to help) in the following situations on my campus:

(Select all that apply)

1=Someone was drinking too much

2=Someone was at risk of being sexually assaulted

3=Someone was using hurtful language (e.g., bullying, sexist, racist, or homophobic comments)

4=Someone was experiencing significant emotional distress or thoughts of suicide

5=There was a physical altercation/fight

6=Other (please specify)

7=None of the above

[mutually exclusive]

How much do you agree with the following statement?:

When I intervened, I was able to make the situation better.

(If you intervened in multiple situations, please consider them as a whole.)

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Bystanding

In the past year, I witnessed the following risky or difficult situations on my campus but did not intervene:

(Select all that apply)

1=Someone was drinking too much

2=Someone was at risk of being sexually assaulted

3=Someone was using hurtful language (e.g., bullying, sexist, racist, or homophobic comments)

4=Someone was experiencing significant emotional distress or thoughts of suicide

5=There was a physical altercation/fight

6=Other (please specify)

7=None of the above

[mutually exclusive]

I decided not to intervene because…

(Select all that apply)

1=I was afraid of embarrassing myself.

2=I assumed someone else would do something.

3=I didn't know what to do.

4=I didn't feel confident.

5=I felt it was none of my business.

6=I was afraid my friends wouldn't support me.

7=I felt it was unsafe.

8=I was afraid I'd get in trouble.

9=Other (please specify)

Sense of belonging

How much do you agree with the following statement?:

I see myself as a part of the campus community.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Adapted from Perceived Cohesion Scale

(Bollen & Hoyle, 1990)

How much do you agree with the following statement?:

I fit in well at my school.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Adapted from Sense of Social and Academic Fit

(Walton & Cohen, 2007)

How much do you agree with the following statement?:

I feel isolated from campus life.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

Other people understand more than I do about what is going on at my school.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Adapted from Sense of Social and Academic Fit

(Walton & Cohen, 2007)

Perceptions of campus climate

How much do you agree with the following statement?:

At my school, I feel that students' mental and emotional well-being is a priority.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

At my school, I feel that the campus climate encourages free and open discussion about mental and emotional health.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

At my school, students are working to promote mental health on campus.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

At my school, the administration is listening to the concerns of students when it comes to health and wellness.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

At my school, I feel that the campus environment has a negative impact on students' mental and emotional health.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

At my school, I feel that the campus environment has a negative impact on students' eating and body image.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Feelings of safety

How safe do you feel on your campus during the day?

1=Very safe

2=Safe

3=Somewhat safe

4=Somewhat unsafe

5=Unsafe

6=Very unsafe

How safe do you feel on your campus at night?

1=Very safe

2=Safe

3=Somewhat safe

4=Somewhat unsafe

5=Unsafe

6=Very unsafe

How safe do you feel in the community surrounding your campus during the day?

1=Very safe

2=Safe

3=Somewhat safe

4=Somewhat unsafe

5=Unsafe

6=Very unsafe

How safe do you feel in the community surrounding your campus at night?

1=Very safe

2=Safe

3=Somewhat safe

4=Somewhat unsafe

5=Unsafe

6=Very unsafe

Diversity and discrimination

How much do you agree with the following statement?:

At my school, I have been exposed to diverse opinions, cultures, and values.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

In the past 12 months, how many times have you been treated unfairly because of your race, ethnicity, gender, sexual orientation, or cultural background?

1=Never

2=Once in a while

3=Sometimes

4=A lot

5=Most of the time

6=Almost all of the time

Stress mindset Experiencing stress depletes health and vitality. 1=Strongly disagree 2=Disagree 3=Neither agree nor disagree 4=Agree

5=Strongly agree

Crum et al. (working paper)

Instructions for this item: "Please rate the extent to which you agree or disagree with the following statements."

Experiencing stress enhances performance and productivity. 1=Strongly disagree 2=Disagree 3=Neither agree nor disagree 4=Agree

5=Strongly agree

Crum et al. (working paper)

Instructions for this item: “Please rate the extent to which you agree or disagree with the following statements.”

Experiencing stress inhibits learning and growth. 1=Strongly disagree 2=Disagree 3=Neither agree nor disagree 4=Agree

5=Strongly agree

Crum et al. (working paper)

Instructions for this item: “Please rate the extent to which you agree or disagree with the following statements.”

The effects of stress are positive and should be utilized. 1=Strongly disagree 2=Disagree 3=Neither agree nor disagree 4=Agree

5=Strongly agree

Crum et al. (working paper)

Instructions for this item: “Please rate the extent to which you agree or disagree with the following statements.”

Perceived competition

How would you rate the overall competitiveness among students in your current classes?

1=Very competitive

2=Competitive

3=Somewhat competitive

4=Not competitive

5=Very uncompetitive

How would you rate the overall competitiveness among students at your school?

1=Very competitive

2=Competitive

3=Somewhat competitive

4=Not competitive

5=Very uncompetitive

How would you rate the overall competitiveness among students in your field of study?

1=Very competitive

2=Competitive

3=Somewhat competitive

4=Not competitive

5=Very uncompetitive

How frequently do instructors in your major/field of study grade your work on a curve (adjust grades based on the grade distribution among students in a class)?

1=Never

2=Almost never

3=Occasionally/Sometimes

4=Almost every time

5=Every time

Clarifying achievement goals and their impact

How much do you agree with the following statements?:

It is very important to me to do well in my courses.

1=Strongly disagree

2=Disagree

3=Neither agree nor disagree

4=Agree

Adapted from Achievement Goal Inventory

(Grant & Dweck, 2003)

5=Strongly agree

How much do you agree with the following statements?:

It is important to me to confirm my intelligence through my schoolwork.

1=Strongly disagree

2=Disagree

3=Neither agree nor disagree

4=Agree

5=Strongly agree

Adapted from Achievement Goal Inventory

(Grant & Dweck, 2003)

How much do you agree with the following statements?:

In school I am always seeking opportunities to develop new skills and acquire new knowledge.

1=Strongly disagree

2=Disagree

3=Neither agree nor disagree

4=Agree

5=Strongly agree

Adapted from Achievement Goal Inventory

(Grant & Dweck, 2003)

How much do you agree with the following statements?:

It is very important to me to feel that my coursework offers me real challenges.

1=Strongly disagree

2=Disagree

3=Neither agree nor disagree

4=Agree

5=Strongly agree

Adapted from Achievement Goal Inventory

(Grant & Dweck, 2003)

Psychological inflexibility/Experiential Avoidance My painful experiences and memories make it difficult for me to live a life that I would value.

1=Never true

2=Very seldom true

3=Seldom true

4=Sometimes true

5=Frequently true

6=Almost always true

7=Always true

Acceptance and Action Questionnaire-II (AAQ-II)

(Bond, Hayes, Baer, Carpetner, Guenole, Orcutt, Waltz, & Zettle, 2011)

Instructions for this item (adapted from AAQ-II (Bond et al., 2011)): "Below you will find a list of statements. Please rate how true each statement is for you. Use the scale below to make your choice."

I'm afraid of my feelings.

1=Never true

2=Very seldom true

3=Seldom true

4=Sometimes true

5=Frequently true

6=Almost always true

7=Always true

Acceptance and Action Questionnaire-II (AAQ-II)

(Bond, Hayes, Baer, Carpetner, Guenole, Orcutt, Waltz, & Zettle, 2011)

Instructions for this item (adapted from AAQ-II (Bond et al., 2011)): "Below you will find a list of statements. Please rate how true each statement is for you. Use the scale below to make your choice."

I worry about not being able to control my worries and feelings.

1=Never true

2=Very seldom true

3=Seldom true

4=Sometimes true

5=Frequently true

6=Almost always true

7=Always true

Acceptance and Action Questionnaire-II (AAQ-II)

(Bond, Hayes, Baer, Carpetner, Guenole, Orcutt, Waltz, & Zettle, 2011)

Instructions for this item (adapted from AAQ-II (Bond et al., 2011)): "Below you will find a list of statements. Please rate how true each statement is for you. Use the scale below to make your choice."

My painful memories prevent me from having a fulfilling life.

1=Never true

2=Very seldom true

3=Seldom true

4=Sometimes true

5=Frequently true

6=Almost always true

7=Always true

Acceptance and Action Questionnaire-II (AAQ-II)

(Bond, Hayes, Baer, Carpetner, Guenole, Orcutt, Waltz, & Zettle, 2011)

Instructions for this item (adapted from AAQ-II (Bond et al., 2011)): "Below you will find a list of statements. Please rate how true each statement is for you. Use the scale below to make your choice."

Emotions cause problems in my life.

1=Never true

2=Very seldom true

3=Seldom true

Acceptance and Action Questionnaire-II (AAQ-II)

(Bond, Hayes, Baer, Carpetner, Guenole, Orcutt, Waltz, & Zettle, 2011)

Instructions for this item (adapted from AAQ-II (Bond et al., 2011)): "Below you will find a list of statements. Please

4=Sometimes true

5=Frequently true

6=Almost always true

7=Always true

rate how true each statement is for you. Use the scale below to make your choice."

It seems like most people are handling their lives better than I am.

1=Never true

2=Very seldom true

3=Seldom true

4=Sometimes true

5=Frequently true

6=Almost always true

7=Always true

Acceptance and Action Questionnaire-II (AAQ-II)

(Bond, Hayes, Baer, Carpetner, Guenole, Orcutt, Waltz, & Zettle, 2011)

Instructions for this item (adapted from AAQ-II (Bond et al., 2011)): "Below you will find a list of statements. Please rate how true each statement is for you. Use the scale below to make your choice."

Worries get in the way of my success.

1=Never true

2=Very seldom true

3=Seldom true

4=Sometimes true

5=Frequently true

6=Almost always true

7=Always true

Acceptance and Action Questionnaire-II (AAQ-II)

(Bond, Hayes, Baer, Carpetner, Guenole, Orcutt, Waltz, & Zettle, 2011)

Instructions for this item (adapted from AAQ-II (Bond et al., 2011)): “Below you will find a list of statements. Please rate how true each statement is for you. Use the scale below to make your choice.”

Emotional resilience I tend to bounce back quickly after hard times.

1=Strongly disagree

2=Disagree

3=Neutral

4=Agree

5=Strongly agree

Brief Resilience Scale (BRS)

(Smith, Dalen, Wiggins, Tooley, Christopher, & Bernard, 2008)

Instructions for this item (adapted from BRS (Smith et al., 2008)): “Please indicate the extent to which you agree with each of the following statements:”

I have a hard time making it through stressful events.

1=Strongly disagree

2=Disagree

3=Neutral

4=Agree

5=Strongly agree

Brief Resilience Scale (BRS)

(Smith, Dalen, Wiggins, Tooley, Christopher, & Bernard, 2008)

Instructions for this item (adapted from BRS (Smith et al., 2008)): “Please indicate the extent to which you agree with each of the following statements:”

It does not take me long to recover from a stressful event.

1=Strongly disagree

2=Disagree

3=Neutral

4=Agree

5=Strongly agree

Brief Resilience Scale (BRS)

(Smith, Dalen, Wiggins, Tooley, Christopher, & Bernard, 2008)

Instructions for this item (adapted from BRS (Smith et al., 2008)): “Please indicate the extent to which you agree with each of the following statements:”

It is hard for me to snap back when something bad happens.

1=Strongly disagree

2=Disagree

3=Neutral

4=Agree

5=Strongly agree

Brief Resilience Scale (BRS)

(Smith, Dalen, Wiggins, Tooley, Christopher, & Bernard, 2008)

Instructions for this item (adapted from BRS (Smith et al., 2008)): “Please indicate the extent to which you agree with each of the following statements:”

I usually come through difficult times with little trouble.

1=Strongly disagree

2=Disagree

Brief Resilience Scale (BRS)

(Smith, Dalen, Wiggins, Tooley, Christopher, & Bernard, 2008)

3=Neutral

4=Agree

5=Strongly agree

Instructions for this item (adapted from BRS (Smith et al., 2008)): “Please indicate the extent to which you agree with each of the following statements:”

I tend to take a long time to get over set-backs in my life.

1=Strongly disagree

2=Disagree

3=Neutral

4=Agree

5=Strongly agree

Brief Resilience Scale (BRS)

(Smith, Dalen, Wiggins, Tooley, Christopher, & Bernard, 2008)

Instructions for this item (adapted from BRS (Smith et al., 2008)): “Please indicate the extent to which you agree with each of the following statements:”

Overall academic experience

How much do you agree with the following statement?:

If I could make my choice over, I would still choose to enroll at my school.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

I am confident that I will be able to finish my degree no matter what challenges I may face.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Display if “Non-degree student” not selected for “In what degree program are you currently enrolled?”

Which of the following challenges are most likely to prevent you from finishing your degree?

(Select all that apply)

1=Financial challenges

2=Mental or emotional health problems

3=Other health problems (not directly related to mental or emotional health)

4=Family obligations

5=Family or relationship difficulties

6=Academic challenges (struggling to pass classes)

7=[if not U.S. citizen, ask→Visa or other challenges related to being a non-U.S. citizen]

8=Lack of motivation or desire

9=Work or professional commitments

10=Career opportunities

11=Other challenge(s) (please specify)

What is the highest degree you plan to pursue?

1=2-year college degree (associate’s)

2=4-year college degree (bachelor’s)

3=Master’s degree

4=Doctoral degree (JD, MD, PhD, etc.)

5=Other degree (please specify)

6=Don’t know

How much do you agree with the following statement?:

I have doubts about whether [college/graduate school] is worth the time, money, and effort that I’m spending on it.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

My family is very supportive of my educational goals.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much do you agree with the following statement?:

My professors believe in my potential to succeed academically.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How has it been to adjust to the academic demands of [college/graduate school] since you began as a student at your school?

1=Very easy

2=Easy

3=Somewhat easy

4=Somewhat difficult

5=Difficult

6=Very difficult

Have you decided to pursue a different major since you began as a student at your school?

1=Yes

0=No

Have you failed one or more courses since you began as a student at your school?

1=Yes

0=No

How often have you turned in course assignments late since you began as a student at your school?

1=Everyday or nearly everyday

2=2 to 3 times per week

3=Once per week

4=1 to 2 times per month

5=1 to 2 times per semester

6=Never

How often have you fallen asleep in class since you began as a student at your school?

1=Everyday or nearly everyday

2=2 to 3 times per week

3=Once per week

4=1 to 2 times per month

5=1 to 2 times per semester

6=Never

Experiences with faculty and academic support services

How often have you utilized academic support services (e.g., a writing center, tutor, etc.) since you began as a student at your school?

1=Everyday or nearly everyday

2=2 to 3 times per week

3=Once per week

4=1 to 2 times per month

5=1 to 2 times per semester

6=Never

How often have you interacted with faculty during office hours since you began as a student at your school?

1=Everyday or nearly everyday

2=2 to 3 times per week

3=Once per week

4=1 to 2 times per month

5=1 to 2 times per semester

6=Never

How often have you interacted with faculty outside of class or office hours (e.g., by phone, email, text, or in person) since you began as a student at your school?

1=Everyday or nearly everyday

2=2 to 3 times per week

3=Once per week

4=1 to 2 times per month

5=1 to 2 times per semester

6=Never

How often have you interacted with academic advisors/counselors (e.g., by phone, email, text, or in person) since you began as a student at your school?

1=Everyday or nearly everyday

2=2 to 3 times per week

3=Once per week

4=1 to 2 times per month

5=1 to 2 times per semester

6=Never

How often have you interacted with graduate students/teaching assistants (e.g., by phone, email, text, or in person) since you began as a student at your school?

1=Everyday or nearly everyday

2=2 to 3 times per week

3=Once per week

4=1 to 2 times per month

5=1 to 2 times per semester

6=Never

Overall social experience

How satisfied are you with your overall social and extracurricular experiences at your school?

1=Very dissatisfied

2=Dissatisfied

3=Somewhat dissatisfied

4=Somewhat satisfied

5=Satisfied

6=Very satisfied

How has it been to develop close friendships with other students at your school?

1=Very easy

2=Easy

3=Somewhat easy

4=Somewhat difficult

5=Difficult

6=Very difficult

How has it been to manage your time effectively since you began as a student at your school?

1=Very easy

2=Easy

3=Somewhat easy

4=Somewhat difficult

5=Difficult

6=Very difficult

Issues affecting academic performance

In the past year, how has the following affected your academic performance?:

(Select all that apply)

Anxiety/stress

1=I did not experience this.

2=I experienced this but it did not affect my academic performance.

3=I received a lower grade on one or more exams or projects.

4=I received a lower grade in one or more courses.

5=I received an incomplete or dropped one or more courses.

6= I had a significant disruption in research, practicum, thesis, or dissertation work.

7=Other

In the past year, how has the following affected your academic performance?:

(Select all that apply)

Depression/suicidality

1=I did not experience this.

2=I experienced this but it did not affect my academic performance.

3=I received a lower grade on one or more exams or projects.

4=I received a lower grade in one or more courses.

5=I received an incomplete or dropped one or more courses.

6= I had a significant disruption in research, practicum, thesis, or dissertation work.

7=Other

In the past year, how has the following affected your academic performance?:

(Select all that apply)

Eating/body image concern

1=I did not experience this.

2=I experienced this but it did not affect my academic performance.

3=I received a lower grade on one or more exams or projects.

4=I received a lower grade in one or more courses.

5=I received an incomplete or dropped one or more courses.

6= I had a significant disruption in research, practicum, thesis, or dissertation work.

7=Other

In the past year, how has the following affected your academic performance?:

(Select all that apply)

Attention disorder or learning disability (e.g., attention deficit disorder, attention deficit

1=I did not experience this.

2=I experienced this but it did not affect my academic performance.

hyperactivity disorder, learning disability)

3=I received a lower grade on one or more exams or projects.

4=I received a lower grade in one or more courses.

5=I received an incomplete or dropped one or more courses.

6= I had a significant disruption in research, practicum, thesis, or dissertation work.

7=Other

In the past year, how has the following affected your academic performance?:

(Select all that apply)

Alcohol/substance use

1=I did not experience this.

2=I experienced this but it did not affect my academic performance.

3=I received a lower grade on one or more exams or projects.

4=I received a lower grade in one or more courses.

5=I received an incomplete or dropped one or more courses.

6= I had a significant disruption in research, practicum, thesis, or dissertation work.

7=Other

In the past year, how has the following affected your academic performance?:

(Select all that apply)

Physical health condition

1=I did not experience this.

2=I experienced this but it did not affect my academic performance.

3=I received a lower grade on one or more exams or projects.

4=I received a lower grade in one or more courses.

5=I received an incomplete or dropped one or more courses.

6= I had a significant disruption in research, practicum, thesis, or dissertation work.

7=Other

In the past year, how has the following affected your academic performance?:

(Select all that apply)

Physical assault

1=I did not experience this.

2=I experienced this but it did not affect my academic performance.

3=I received a lower grade on one or more exams or projects.

4=I received a lower grade in one or more courses.

5=I received an incomplete or dropped one or more courses.

6= I had a significant disruption in research, practicum, thesis, or dissertation work.

7=Other

In the past year, how has the following affected your academic performance?:

(Select all that apply)

Sexual assault

1=I did not experience this.

2=I experienced this but it did not affect my academic performance.

3=I received a lower grade on one or more exams or projects.

4=I received a lower grade in one or more courses.

5=I received an incomplete or dropped one or more courses.

6= I had a significant disruption in research, practicum, thesis, or dissertation work.

7=Other

Socioeconomic status

How would you describe your financial situation

while growing up?

1=Always stressful

2=Often stressful

3=Sometimes stressful

4=Rarely stressful

5=Never stressful

SDS58

How would you describe your financial situation

right now?

1=Always stressful

2=Often stressful

3=Sometimes stressful

4=Rarely stressful

5=Never stressful

SDS57

On a scale from 0 (much poorer) to 10 (much wealthier), how do you think your socioeconomic status compares relative to other students at your school?

1=0=Much poorer than most students at my school

2=1

3=2

4=3

5=4

6=5=Average (about 50% of students are poorer and about 50% are wealthier than me)

7=6

8=7

9=8

10=9

11=10=Much wealthier than most students at my school

How much do you agree with the following statement?:

Other students at my school are able to do things that I cannot afford to do.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

Financing education

How much do you agree with the following statement?:

I am worried about my ability to pay for school.

1=Strongly agree

2=Agree

3=Somewhat agree

4=Somewhat disagree

5=Disagree

6=Strongly disagree

How much of the past year's educational expenses (room, board, tuition, and fees) were covered by family resources (parents, relatives, spouse, etc.)?

1=None

2=$1-$2,999

3=$$3,000-$5,999

4=$6,000-$9,999

5=$10,000-$14,999

6=$15,000 or more

7=Don't know

How much of the past year's educational expenses (room, board, tuition, and fees) were covered by your own resources (income from work, work-study, etc.)?

1=None

2=$1-$2,999

3=$$3,000-$5,999

4=$6,000-$9,999

5=$10,000-$14,999

6=$15,000 or more

7=Don't know

How much of the past year's educational expenses (room, board, tuition, and fees) were covered by aid that need not be repaid (grants, scholarships, military, etc.)?

1=None

2=$1-$2,999

3=$$3,000-$5,999

4=$6,000-$9,999

5=$10,000-$14,999

6=$15,000 or more

7=Don't know

How much of the past year's educational expenses (room, board, tuition, and fees) were covered by aid that must be repaid (loans)?

1=None

2=$1-$2,999

3=$$3,000-$5,999

4=$6,000-$9,999

5=$10,000-$14,999

6=$15,000 or more

7=Don't know

How much of the past year's educational expenses (room, board, tuition, and fees) were covered by other sources?

1=None

2=$1-$2,999

3=$$3,000-$5,999

4=$6,000-$9,999

5=$10,000-$14,999

6=$15,000 or more

7=Don't know

HMS, ACADEMIC YEAR 2016-2017

SURVEY ENDINGS:

[SURVEY ENDING #1: CONSENT/ASSENT NOT GRANTED]

Because you have not [consented/assented] to complete the survey you may now close your browser.

[local resources]

If you would like to learn more about the Healthy Minds Study, you can visit healthymindsnetwork.org/hms.

[SURVEY ENDING #2, PART 1: SURVEY COMPLETERS, FEEDBACK]

You're almost done!

You answered several questions in this survey that are part of commonly used screening tools to help determine symptom levels and risk for various mental health problems. Please indicate whether you'd like to view your personalized feedback page (which includes scores on screening tools pertaining to Depression, Anxiety, and Eating

Disorders. As with all screening instruments, the results (phrases and numbers) correspond simply to your pattern of responding and are compared to other people who have taken the instrument. This screening is not a substitute for a clinical evaluation and is not an actual diagnosis, and only suggests that compared to other people you MAY have the presence of mental health symptoms. You should contact a health professional for more information and a complete evaluation, if you are interested, by consulting the resources noted for your campus.

"Yes, I'd like to view my personalized feedback page"

"No, I would not like to view my personalized feedback page"

[DISPLAY IF ITEM ABOVE ANSWERED "YES"]

Below is some personalized feedback based on your responses. Once you have read this information, please click "CONTINUE" to submit the survey and view a list of resources.

The Healthy Minds Study includes several commonly used screening tools that are used to determine symptom levels and risk for various mental health problems. Note that these results are not diagnoses but we hope they will help put things in perspective for you. To print this feedback page, please feel free to right-click the page and click "print". Here's what your responses indicate:

Depression: You answered a series of 9 questions used to assess symptoms of depression. Scores range from 0 to 27, with higher scores indicating higher levels of depression. Scores are interpreted as follows: 0-4 "no signs of depression", 5-9 "mild depression", 10-14 "moderate depression", 15-19 "moderately severe depression", and 20-27 "severe depression". Your score is [insert score].

Anxiety: You answered a series of 7 questions used to assess symptoms of anxiety. Scores range from 0 to 21, with higher scores indicating higher levels of anxiety. Scores are interpreted as follows: 0-4 "no signs of anxiety", 5-9 "mild anxiety", 10-14 "moderate anxiety", and 15-21 "severe anxiety". Your score is [insert score].

Eating disorder: You answered a series of 5 questions used to assess symptoms of eating disorders. Scores range from 0 to 5, with higher scores indicating higher levels of disordered eating. A score of 2 or higher is considered a positive screen for an eating disorder. Your score is [insert score].

[if reported suicidal ideation□Because you indicated that you have had suicidal thoughts or attempts in the past year, we are especially concerned about whether you are receiving the support you may need. We urge you to consider the resources shown below and on the next page if you are not already receiving help.

National Suicide Prevention Lifeline

Phone: 1-800-273-TALK

Website: www.suicidepreventionlifeline.org

The National Suicide Prevention Lifeline is a 24-hour, toll-free, confidential suicide prevention hotline available to anyone in suicidal crisis or emotional distress.]

[SURVEY ENDING #2, PART 2A: SURVEY COMPLETERS (LOW-RISK), RESOURCES]

Thank you for completing the Healthy Minds Study!

As stated before you began the survey, all of your responses will remain confidential. Your participation will help inform programs and resources for [name of school] students. We also hope that taking this survey has been a valuable experience for you. Below is a list of resources. If you'd like to save this information, please print this page from your web browser now by right-clicking this page and clicking “print”. Please click HERE if you wish to print a copy of the consent form.

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Also, you have been automatically entered into a sweepstakes for 1 of 2 $500 prizes or 1 of 10 $100 prizes. The drawing will be conducted by researchers at the University of Michigan School of Public Health in Ann Arbor, Michigan in summer 201#. Winners will be notified by email and provided with information about how to collect the prize.

[Insert school’s custom incentives if applicable]

Resources:

[local resources]

Other resources:

National Sexual Assault Online Hotline

Website: https://ohl.rainn.org/online/

If you would like to learn more about the Healthy Minds Study, you can visit healthymindsnetwork.org/hms. To provide

HMS, ACADEMIC YEAR 2016-2017

SURVEY ENDINGS:

[SURVEY ENDING #1: CONSENT/ASSENT NOT GRANTED]

Because you have not [consented/assented] to complete the survey you may now close your browser.

[local resources]

If you would like to learn more about the Healthy Minds Study, you can visit healthymindsnetwork.org/hms.

[SURVEY ENDING #2, PART 1: SURVEY COMPLETERS, FEEDBACK]

You're almost done!

You answered several questions in this survey that are part of commonly used screening tools to help determine symptom levels and risk for various mental health problems. Please indicate whether you'd like to view your personalized feedback page (which includes scores on screening tools pertaining to Depression, Anxiety, and Eating Disorders. As with all screening instruments, the results (phrases and numbers) correspond simply to your pattern of responding and are compared to other people who have taken the instrument. This screening is not a substitute for a clinical evaluation and is not an actual diagnosis, and only suggests that compared to other people you MAY have the presence of mental health symptoms. You should contact a health professional for more information and a complete evaluation, if you are interested, by consulting the resources noted for your campus.

"Yes, I'd like to view my personalized feedback page"

"No, I would not like to view my personalized feedback page"

[DISPLAY IF ITEM ABOVE ANSWERED "YES"]

Below is some personalized feedback based on your responses. Once you have read this information, please click "CONTINUE" to submit the survey and view a list of resources.

The Healthy Minds Study includes several commonly used screening tools that are used to determine symptom levels and risk for various mental health problems. Note that these results are not diagnoses but we hope they will help put things in perspective for you. To print this feedback page, please feel free to right-click the page and click "print". Here's what your responses indicate:

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Eating disorder: You answered a series of 5 questions used to assess symptoms of eating disorders. Scores range from 0 to 5, with higher scores indicating higher levels of disordered eating. A score of 2 or higher is considered a positive screen for an eating disorder. Your score is [insert score].

[if reported suicidal ideation Because you indicated that you have had suicidal thoughts or attempts in the past year, we are especially concerned about whether you are receiving the support you may need. We urge you to consider the resources shown below and on the next page if you are not already receiving help.

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Phone: 1-800-273-TALK

Website: www.suicidepreventionlifeline.org

The National Suicide Prevention Lifeline is a 24-hour, toll-free, confidential suicide prevention hotline available to anyone in suicidal crisis or emotional distress.]

[SURVEY ENDING #2, PART 2A: SURVEY COMPLETERS (LOW-RISK), RESOURCES]

Thank you for completing the Healthy Minds Study!

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Appendix B: Adapted Devaluation-Discrimination (Perceived Public Stigma) Scale

Please indicate whether you agree or disagree with the following statements.

1. Most people would willingly accept a person who has received mental health treatment as a close friend.
2. Most people believe that a person who has received mental health treatment is just as intelligent as the average person.
3. Most people believe that a person who has received mental health treatment is just as trustworthy as the average citizen.
4. Most people would accept a fully recovered person who has received mental health treatment as a teacher of young children in a public school.
5. Most people feel that receiving mental health treatment is a sign of personal failure.*
6. Most people would not hire a person who has received mental health treatment to take care of their children, even if he/she had been well for some time.*
7. Most people would think less of a person who has received mental health treatment.*
8. Most employers will hire a person who has received mental health treatment if he/she is qualified for the job.
9. Most employers will pass over the application of a person who has received mental health treatment in favour of another applicant.*
10. Most people in my community would treat a person who has received mental health treatment just as they would treat anyone else.
11. Most people would be reluctant to date a man/woman who has received mental health treatment.*
12. Once they know a person was in a mental hospital, most people will take his opinions less seriously.*