Mental Health Equity in Higher Education:
The Role of Policy, Policing, and Visible Inclusion

by

Sara Abelson

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Health Behavior and Health Education)
in the University of Michigan
2022

Doctoral Committee:

<div style="margin-left:2em">

Professor Cleopatra H. Caldwell, Co-Chair
Professor Daniel Eisenberg, University of California Los Angeles, Co-Chair
Professor Tabbye Chavous
Assistant Professor Kristi Gamarel
Professor Emeritus Patricia Gurin

</div>

Sara R. Abelson

sabelson@umich.edu

ORCID iD: 0000-0003-4854-0164

DEDICATION

We "must give an honest and thorough account of the constructive interventions that have occurred as a consequence of all our efforts to create justice in education. We must highlight all the positive, life-transforming rewards that have been the outcome of collective efforts to change our society, especially education, so that it is not a site for the enactment of domination in any form."

> -bell hooks, *Teaching Community: A Pedagogy of Hope, p. xiii*

My dissertation is inspired by the work of bell hooks who spoke about the importance of not only naming the problems in academia and education but "also fully and deeply articulating what we do that works to address and resolve issues…to generate anew and inspire a spirit of ongoing resistance. When we only name the problem, when we state complaint without a constructive focus on resolution, we take away hope" (hooks, 2003, p. xiv). She powerfully documented the work of "teachers and students to transform academia so that the classroom is not a site where domination (on the basis of race, class, gender, nationality, sexual preference, religion)" and scholars who "courageously created new work to help us all understand better the ways diverse systems of domination operate both independently and interdependently to perpetuate and uphold exploitation and oppression" (hooks, 2003, p. xiii). She also emphasized a unique and hopeful focus on the wellbeing of learners (Specia & Osman, 2018). With this dissertation, I humbly aspire to conduct research that contributes to identifying solutions to protect the wellbeing of learners in higher education and transforming academia to tear down the diverse systems of domination operating independently and interdependently to perpetuate and uphold oppression.

The work is dedicated to the millions of students struggling each day with their mental health and taking great care to invest in their wellbeing and emotional health alongside their academic pursuits. Especially to those doing so as they confront racism, cissexism, transphobia, police violence, and other forms of discrimination and bias. This dissertation is dedicated to the thousands of students each year who take significant time to share their mental health struggles and perspectives with their schools and researchers, via the Healthy Minds Study—an act of hope and investment in making things better. It is also dedicated to the peers, teachers,

administrators, and changemakers working to transform postsecondary institutions to better support student mental health and wellbeing. As Grace Lee Boggs described them: the "solutionaries…solving one problem after another every minute of every day" (in her words: "the way women and especially mothers" do) (Boggs, 2013). Especially to those continuously prioritizing and seeking solutions that enhance equity. The death of my mentor and colleague, a beloved college counseling center director, Greg Eells, by suicide, while I worked on this dissertation, provided a heart-breaking reminder of how many solutionaries toil amid their own struggles and sometimes at the expense of their own wellbeing. To Greg, and the many, many colleagues and mentors I've worked alongside who are giving their heart and soul to changing the culture in higher education to better support student mental health. Finally, this dissertation is dedicated to the abolitionists who see abolition as a creative process and are working to identify what we need to invest in to keep our communities, and *all* who reside in them, safe (Alexander, 2021; Davis, 2003).

ACKNOWLEDGEMENTS

Last, but certainly not least, this dissertation would not exist without my loved ones. You get me through the days, months, and years with joy, love, kindness, laughter, wonder, support, and gratitude. To my parents, Jim and Jamie, and mother in-law, Jane: thank you, thank you, thank you for all you have invested in me by investing in and caring for Jesse. I could not have done this PhD without your love, support, and childcare. Dad, I am also grateful for the many times you let me talk through the structure or organization of an idea or manuscript and contributed your editing and word-cutting skills as I progressed. Mom, your consistent encouragement as well as your personal career in many ways led to my pursuit of this PhD and shaped the focus of my dissertation. There is too much to say here but I smile thinking about how everything from your early involvement in providing a clinical response to psychiatric emergencies to your work today while you so brilliantly nurtured and invested in Leora and I led to the contents of my dissertation. Leora, RayRay, Kyle, Cathryn, Vanessa, Victor and fam, Sara, Michelle, Linda, and Morgan and others: you're the best! You've cheered me through every stage of the last 5.5 years. Finally, Ben and Jesse, I adore you. I'm SO grateful for our family and for your love, patience, laughter, and endless forms of support. Jesse, you were the brightest, most joyful part of this entire PhD experience. Your curiosity, laughter, questions, smarts, thoughtfulness, kindness, humor, energy, dancing, enthusiasm, growth, exuberance, and love is the highlight of every day. Ben, I couldn't have done this without you. You've been the most superb partner, companion, confidant, coach, advisor, comfort, friend, and more. Thanks to the pandemic you have also been my co-worker, office mate, colleague, lunch buddy, statistical consultant, tech support, and chef. You are a phenomenal co-parent in absolutely every sense of the word. I am endlessly grateful for how you have prioritized and invested in my work and for your support and patience as I completed this dissertation.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

The mental health of college students has become one of the top concerns in higher education. The number of students reporting psychological distress and seeking services has dramatically increased over the last two decades. Colleges are struggling to address longstanding mental health inequities such as those facing students of color (SOC) and transgender and gender diverse (TGGD) students. An accumulating body of research documents the scope of the problem and potential interventions. However, this literature has been siloed across a variety of academic fields and predominantly focused on individual student risk and protective factors while dedicating minimal attention to institutional opportunities for advancing mental health equity. This dissertation takes a socioecological approach and focuses on community, institutional, and policy-level factors to identify solutions that move beyond "fixing students" to help institutions become mental health promoting, not harming, environments.

First, I conduct a multidisciplinary review of higher education interventions and policies shaping student mental health, with attention to multiple levels of influence (Study 1 | Chapter 2). This chapter provides the first comprehensive review of the evidence base pertaining to public health approaches to promote college student mental health, prevent mental health problems, and intervene with students who are already struggling. My scholarship lays crucial groundwork for a more evidence-informed approach to address the growing challenges of student mental health in higher education.

Next, I advance research on two arenas of institutional practice—policing and TGGD-inclusive policies—relevant for enhancing mental health equity. Specifically, I use new data that I collected from 5379 students at a large Midwestern institution in partnership with the Healthy Minds Study to examine a) differing perceptions of and experiences with university police across race/ethnicity and gender identity and b) student perspectives on public safety policy-change opportunities to enhance mental health (Study 2 | Chapter 3). I take a novel intersectional approach that moves beyond binary conceptions of gender and considers the experiences of cisgender men, cisgender women, and TGGD students across multiple races/ethnicities. My

results provide the first quantitative, representative understanding of student experiences with police at a large, public university. Findings reveal half of students reported encounters with police; with 24% experiencing unfair treatment. Attitudes about police presence were mixed, most students indicated one or more problems with campus police, and support for policy change was widespread. There were significant differences across race and gender.

Last, I investigate the relationship between awareness and visibility of school TGGD-inclusion policies, psychosocial outcomes, and psychosocial inequities between TGGD and cisgender students using a survey that I designed and implemented at 28 institutions through the Healthy Minds Study (Study 3 | Chapter 4). This is the first research to examine the impact of higher education policy on psychosocial inequities between TGGD and cisgender students. I advance understanding of a novel and important construct: policy visibility. Multivariable results reveal higher visibility of inclusive nondiscrimination policies, gender inclusive restrooms, and pronoun options is associated with reduced psychosocial inequities for TGGD college students. The dissertation concludes with recommendations for colleges as we emerge from a global pandemic, which has further taxed student mental health. The culmination of the research suggests a more evidence-informed, policy-focused, equity-minded approach is needed to address the growing challenges of student mental health in higher education.

CHAPTER 1: Introduction

Mental health problems are common, consequential, and largely untreated on United States (U.S.) college campuses, undermining student academic outcomes, future earnings, and life chances. Marginalized students, including students of color (SOC) and transgender and gender diverse (TGGD) students, face additional mental health burdens and barriers to care compared to their peers. The number of students reporting psychological distress and seeking services has dramatically increased, and colleges and universities are struggling to respond. This three-paper dissertation takes a socioecological approach to understanding 1) public health interventions for responding to the complex problem of a high and increasing prevalence of mental health problems among college students and 2) identifying institutional opportunities for colleges and universities to enhance mental health equity.

This Introduction serves to define key terms and provide an overview of the dire state of college student mental health. I review research indicating that mental health problems among students are prevalent and increasing, largely untreated, consequential, highly inequitable, growing worse due to the global pandemic, and beyond the capacity of current budgets and solutions. After describing three prominent gaps in the existing research literature, I briefly outline the dissertation, its theoretical orientation, and its contributions.

Key Terms

Transgender and gender diverse (TGGD) students will be a focus of this dissertation. Sometimes referred to as gender minorities, TGGD students are individuals whose gender identity or expression differs from their assigned sex at birth or does not fit within the male−female binary. Varying terms are used to refer to the population; I selected transgender and gender diverse based on the 2020 Consensus Study Report of the National Academies of Sciences, Engineering, and Medicine on *Understanding the Well-Being of LGBTQI+ Populations.* The TGGD umbrella term encompasses transgender, genderqueer, and gender nonconforming individuals, as well as those who have another self-identified gender. TGGD

individuals are distinct from cisgender people, whose gender identity and expression matches their assigned sex at birth.

Students of color (SOC) are another population of focus in this dissertation. I use the term students of color to broadly refer to racial and ethnic minorities including African American/Black, Hispanic/Latin(x), Asian American/Asian, Middle Eastern/Arab, American Indian and Alaskan Native, Native Hawaiian and Pacific Islander, and multiracial students. Since 2020 there has been growing use of the term "BIPOC"—referring to those who are Black, Indigenous, and People of Color (Deo, 2021). However, the term has been critiqued for doing a "disservice to communities of color and efforts to dismantle systems of racial privilege" (Deo, 2021, p.118). It centers some groups in name only while they remain excluded in reality and simultaneously excludes other groups warranting attention (Deo, 2021). Students of color is the term most used in the literature reviewed and cited for this dissertation and I maintain use of that term. In Study 2 (Chapter 3) I also use the term unrepresented minority (URM), federally defined as U.S. citizens who identify as African American/Black, Hispanic/Latin(x), American Indian or Alaskan Native, or multiracial. I also include students identified in my research as Middle Eastern/Arab or Native Hawaiian and Pacific Islander; these students are not identified in federal data collection. The URM category does not include Asian students as they are not a numerical minority in higher education.

State of College Student Mental Health

> *"The problem is as great or greater than it's ever been, and it's not getting better."*
> -Alan Leshner, Chair of the National Academies of Sciences, Engineering, & Medicine Consensus Report on Mental Health, Substance Use, and Wellbeing in Higher Education (2021)

Increasing Prevalence

Mental health concerns are prevalent and on the rise at higher education institutions (Eisenberg, 2019). Over 42% of students (8.4 million) are living with symptoms of a diagnosable mental health disorder (Blanco et al., 2008; Lipson, Kern, Eisenberg, & Breland-Noble, 2018). Undergraduate and graduate students are all experiencing high rates of mental health concerns (Council of Graduate Schools, 2021; Lipson, Zhou, Wagner, Beck, & Eisenberg, 2016; National Academies of Sciences Engineering & Medicine, 2021). Both national population surveys and clinical data document rising rates of anxiety, depression, psychological distress, and suicidal thoughts among college students. The number of students reporting psychological distress—such

as suicidal thoughts and depressive and anxiety symptoms—approximately doubled from 2009 to 2019 in population surveys (Duffy, Twenge, & Joiner, 2019). For example, the Healthy Minds Survey of more than 300,000 students at 300+ colleges and universities documented suicidal ideation among 14% of students in 2018 compared to 6% in 2007 (Duffy et al., 2019; Eisenberg et al., 2019). Likewise, clinical data collected between 2010–2015 shows significant increases for "self-reported distress in generalized anxiety, depression, social anxiety, family distress, and academic distress" as well as suicide and self-harm–related issues (Xiao et al., 2017, p.407). These findings are supplemented by national data showing similar patterns among adolescents and young adults in the general population (Mojtabai, Olfson, & Han, 2016). Moreover, mental health problems are not only increasing in prevalence but also in symptom severity (Twenge et al., 2010; Xiao et al., 2017). Evidence indicates students' presenting concerns at campus counseling centers have grown more complex and severe over the last two decades (Benton, Robertson, Tseng, Newton, & Benton, 2003).

Largely Untreated Mental Health Problems

Alarmingly, about half of students with clinically significant symptoms are not receiving treatment (Lipson, Lattie, & Eisenberg, 2019). There has been consistent growth in the number of student of students seeking treatment over the last decade (Lipson, Lattie, et al., 2019; Oswalt et al., 2020). In fact, growth in demand for college counseling center services has far outpaced growth in institutional enrollment (Xiao et al., 2017). Yet, a large proportion of college students remain struggling with untreated clinically significant mental health symptoms (Blanco et al., 2008; Lipson, Lattie, et al., 2019; Merikangas et al., 2011; Mojtabai et al., 2016).

Consequences of Mental Health Problems

Untreated mental health disorders have major consequences. They undermine academic outcomes, persistence, retention, future earnings, and life chances (Arria et al., 2013; Billingsley & Hurd, 2019; Breslau, Lane, Sampson, & Kessler, 2008; Bruffaerts et al., 2018; De Luca, Franklin, Yueqi, Johnson, & Brownson, 2016; Eisenberg, Golberstein, & Hunt, 2009; Ettner, Frank, & Kessler, 1997). Most tragically, they lead to suicide, which is the second leading cause of death for college students (NIMH, 2017; Cash & Bridge, 2009). Worldwide, mental health disorders are a leading cause of disability, morbidity, and mortality and *the* leading cause of disability for young adults (Institute for Health Metrics and Evaluation, 2015; Kessler, Chiu, Demler, & Walters, 2005; Michaud et al., 2006; Murthy et al., 2001; The World Health

Organization, 2004). Most mental health disorders emerge by age 25, with onset and exacerbation of symptoms often coinciding with college attendance (Hunt & Eisenberg, 2010; Kessler, Berglund, et al., 2005; Pedrelli, Nyer, Yeung, Zulauf, & Wilens, 2015). Early intervention can reduce the persistence of these disorders, their associated functional impairment and loss of productivity, and their tremendous annual cost to individuals and society (Alegría, Greif Green, McLaughlin, & Loder, 2015; Blanco et al., 2008; National Academies of Sciences Engineering & Medicine, 2021; Wang, Demler, & Kessler, 2002).

Inequities in Mental Health Problems

The mental health problems challenging postsecondary institutions are even more severe when considering the burdens and treatment barriers experienced by student subpopulations. Marginalized and minoritized students, including SOC and TGGD students, face additional mental health burdens and barriers to care compared to their peers (Alegría et al., 2015; Eisenberg, Hunt, & Speer, 2013; Lipson et al., 2018; Lipson, Raifman, Abelson, & Reisner, 2019; Merikangas et al., 2011; Oswalt & Lederer, 2017; Woodford, Kulick, & Atteberry, 2015). The largest inequities in prevalence rates are experienced by TGGD students (Lipson, Raifman, et al., 2019; Oswalt & Lederer, 2017). TGGD students experience symptoms of mental health disorders and suicidality at 2-4 times of the rate of their cisgender peers (Lipson, Raifman, et al., 2019). In a national survey of more than 65,000 students at 71 institutions prior to COVID-19, 78% of TGGD students reported clinically significant symptoms of one or more mental health disorders compared with 45% of cisgender students (Lipson, Raifman, et al., 2019). More than one third of TGGD students reported thinking seriously about suicide in the past year relative to 1 in 10 cisgender students (Lipson, Raifman, et al., 2019). These mental health inequities have been attributed to experiencing high levels of discrimination, victimization, and bullying (Clements-Nolle, Marx, & Katz, 2006; Effrig, Bieschke, & Locke, 2011; Gower et al., 2018; Kosciw, Greytak, Giga, Villenas, & Danischewski, 2015; Robinson & Espelage, 2011; Russell, Toomey, Ryan, & Diaz, 2014; Seelman, Woodford, & Nicolazzo, 2017; Toomey, McGuire, & Russell, 2012). Though mental health inequities are well documented for TGGD youth and young adults, the population remains understudied in higher education research because most datasets do not collect the needed information to identify these students (Patterson, Jabson, & Bowen, 2017).

SOC also face mental health inequities at higher education institutions. They experience additional mental health burdens, detrimental academic effects, and barriers to care compared to White students (Chen, Stevens, Wong, & Liu, 2019; Lipson et al., 2018). They face stressors from institutional and interpersonal racism, hostile racial climates, belonging uncertainty, challenges to social integration and support, and imposter syndrome (Cokley, McClain, Enciso, & Martinez, 2013; Hurtado et al., 2007; Lige, Peteet, & Brown, 2017; Walton & Cohen, 2011). These stressors are all linked to psychological consequences including increased symptoms of psychological distress, depression, and anxiety (Bernard, Lige, Willis, Sosoo, & Neblett, 2017; Cokley, Hall-Clark, & Hicks, 2011; Cokley et al., 2013; Keels, Durkee, & Hope, 2017). In terms of population-level variation in the prevalence of clinically significant mental health symptoms among SOC and White students the Healthy Minds Study has found a reduced odds among African Americans but increased odds among Arab/Arab American and multiracial students relative to White students (Lipson et al., 2018). Analyses of 2015 American College Health Association National College Health Assessment from 108 colleges identified that despite reporting lower rates of psychiatric diagnoses compared with White students, multiracial and Asian/ Pacific Islander students were more likely to report having felt hopeless, so depressed that it was difficult to function, or overwhelmed by anger, and were more likely to have considered or attempted suicide (Chen et al., 2019). Compared with Whites students, Black and Hispanic students reported lower rates of psychiatric diagnoses but similar rates of past-year suicide attempts (Chen et al., 2019).

Beyond prevalence differences, racial and ethnic minority students are more likely to report functional impairments caused by mental health than their White peers (Eisenberg et al., 2013). SOC present to college counseling centers with higher levels of psychological distress than White students (Kearney, Draper, & Barón, 2005). This likely stems from delays in accessing treatment due to barriers such as financial ones, historical mistreatment in healthcare settings, lack of cultural alignment and sensitivity by providers and stigma (Alegría et al., 2002, 2015; Busby et al., 2019; Cabral & Smith, 2011; Eisenberg, Downs, Golberstein, & Zivin, 2009; Herman, Steve et al., 2011; Horwitz et al., 2020; Kearney et al., 2005; Lipson et al., 2018; Padgett, Patrick, Burns, & Schlesinger, 1994). SOC are the least likely college students to access services (Eisenberg, Downs, Golberstein, & Zivin, 2009; Herman, Steve et al., 2011; Lipson et al., 2018; Masuda et al., 2009). Diagnoses as well as medication and therapy utilization rates are

lower among SOC relative to White students (Herman, Steve et al., 2011; Kearney et al., 2005; Lipson et al., 2018; Masuda et al., 2009). Only one-quarter of African-American college students have received a mental health diagnosis compared to nearly half of White students (Lipson et al., 2018). Asian students have the lowest prevalence of mental health treatment; approximately 80% of students with clinically significant symptoms are untreated (Lipson et al., 2018). Disparities exist not only in initial access to care, but also in quality of services received and completed (Alegría et al., 2002; Kearney et al., 2005). Unfortunately, despite investments in college student mental health over the last decade, mental health inequities faced by SOC have not declined (Lipson et al., 2022). U.S. institutions of higher education are increasingly diverse (Espinosa, Turk, Taylor, & Chessman, 2019) and colleges and universities—"originally designed to serve a predominantly white and male population"—urgently need strategies to equitably advance the mental health of all students (National Academies of Sciences Engineering & Medicine, 2021, p. 35).

Growing Worse Due to the Global Pandemic

> **"**It would be a tragedy if we beat back one public health crisis only
> to allow another to grow in its place"
> > - Vivek H. Murthy, M.D., M.B.A.
> > Vice Admiral, U.S. Public Health Service
> > Surgeon General of the United States in *Protecting Youth*
> > *Mental Health: The U.S. Surgeon General's Advisory*

It is too early to determine the full magnitude of impact of the ongoing, rapidly evolving, global coronavirus disease 2019 (COVID-19) pandemic on higher education and college student mental health. However, substantial and growing evidence suggests that the pandemic is worsening young adult mental health and exacerbating mental health inequities (American Council on Education, 2020; Copeland et al., 2021; Czeisler et al., 2020; Ettman et al., 2021; Hoyt, Cohen, Dull, Maker Castro, & Yazdani, 2020; Liu, Pinder-Amaker, Hahm, & Chen, 2020; Woolston, 2020). There is some disagreement about the scope of the problem and certainly some evidence of resilience among young people (American College Health Association & Healthy Minds Study, 2020; American Council on Education, 2020; National Academies of Sciences Engineering & Medicine, 2021; Office of the Surgeon General, 2021b). However, college students report the pandemic has made it more difficult to access mental health care, stressed their financial situation, and taken the lives of loved ones (American College Health Association

& Healthy Minds Study, 2020). Remote learning distanced students from friends, mentors, school resources, and valuable and supportive in-person activities. Self-reported rates of depression increased along with negative mental health impacts on academics and levels of psychological wellbeing decreased in Spring 2020 compared to Fall 2019 (American College Health Association & Healthy Minds Study, 2020).

A pandemic-related rise in the prevalence of mental health problems is not unique to college student populations; the prevalence is rising in adolescent and young adult populations overall, including among the young people who will be entering institutions of higher education in the coming years (National Academies of Sciences Engineering & Medicine, 2021; Office of the Surgeon General, 2021b; Panchal et al., 2020; Racine et al., 2021). For example, emergency room visits for suspected suicide attempts were up 51% and 4% for U.S. adolescent girls and boys, respectively, in early 2021 compared to the same time period in 2019 (Yard et al., 2021). Demand for treatment services has spiked, far outpacing capacity, and likely will continue to grow (Office of the Surgeon General, 2021b; Parker-Pope, 2021; Woolston, 2021). The "unfathomable number of deaths, pervasive sense of fear, economic instability, and forced physical distancing from loved ones, friends, and communities" accompanying the pandemic is likely to exacerbate stress and tax mental health for years to come (Office of the Surgeon General, 2021, p.4). Additionally, the pandemic coincided with several other notable events in U.S. society that may have affected the mental and emotional wellbeing of young people. For example, violent deaths of several Black Americans at the hands of police officers and ensuing protests; COVID-related violence against Asian Americans; a White supremacist insurrection at the U.S. capitol; gun violence; growing concerns about climate change; and "emotionally-charged misinformation" (Johnston & Davey, 1997; Office of the Surgeon General, 2021b, 2021a; Ssentongo et al., 2021; Zhou, Banawa, & Oh, 2021).

These incidents and the pandemic disproportionately impacted SOC and other marginalized communities, especially TGGD students, exacerbating mental health inequities (Hoyt et al., 2020; Office of the Surgeon General, 2021b). For example, rising rates of depression and anxiety (doubling in one survey) among graduate students during the pandemic were most pronounced among economically disadvantaged students, Latinx students, and sexual and gender minorities (lesbian, gay, bisexual, and TGGD students) (Woolston, 2020). Research demonstrates that American Indian and Alaska Native young people faced pandemic-related

education barriers due to limited internet access (American Indian Policy Institute, 2021). Black youth and college students were more likely than peers to lose a loved one to COVID-19 (American College Health Association & Healthy Minds Study, 2020; Hillis et al., 2021). Asian American college students reported increased stress due to COVID-19 related harassment (Zhou, Banawa, & Oh, 2021). Latino youth reported high rates of loneliness and decreased mental health during the pandemic (Rogers, Ph, Ha, Ph, & Ockey, 2020). TGGD young people lost access to school-based services, were sometimes confined to unsupportive or unsafe homes, and experienced large increases in psychological distress (Department of Education Office of Civil Rights, 2021; Gonzales, Loret de Mola, Gavulic, McKay, & Purcell, 2020; Hoyt et al., 2020; Jarrett et al., 2020; Panchal et al., 2020).

Beyond the Capacity of Current Budgets and Solutions

High and rising rates of mental health disorders and distress, increased severity and suicidality, increased treatment-seeking, widening inequalities, and an ongoing pandemic poised to further exacerbate mental health and inequities, are unfolding in a financially strained higher education environment (National Academies of Sciences Engineering & Medicine, 2021; Selingo, 2015; Woolston, 2021; Xiao et al., 2017). Institutions of higher education face increased operating costs, greater market competition, and significant declines in public financial support, "resulting in tight budgets and difficult allocation decisions" (National Academies of Sciences Engineering & Medicine, 2021, p.38). The pandemic has led to additional unprecedented financial challenges for colleges and universities (Jenkins, Fink, & Brock, 2020; National Academies of Sciences Engineering & Medicine, 2021; Startz, 2020). While clinical treatment is highly effective and necessary for many students, current university budgets and counseling center capacities will not allow for addressing the large and growing problem of student mental health primarily through 1-on-1 intervention. The major and growing national shortage of mental health professionals further interferes with this approach (Cummings, Wen, & Druss, 2013; Thomas & Holzer, 2006; Thomas, Ellis, Konrad, Holzer, & Morrissey, 2009).

Even prior to the COVID-19 pandemic, school counseling centers could not keep up with student demand despite growing budgets and expanding capacity at many institutions over the last decade (Benton et al., 2003; Gallagher, 2014; Gallagher, 2010, 2012; LeViness, Gorman, Braun, Koenig, & Bershad, 2019; Xiao et al., 2017). More than a decade ago, nearly half of college counseling centers reported having to adopt waitlists and nearly 90% of counseling

center directors raised concerns that clients might not be getting treatment when they needed it (Gallagher, 2011). The pandemic is now increasing the need and demand for support further (Parker-Pope, 2021; Woolston, 2021). It is likely to increase needs most significantly at institutions with the fewest resources to respond, such as community colleges (Hope Center, 2021; Lederer, Hoban, Lipson, Zhou, & Eisenberg, 2021; Liu et al., 2020). Cost-effective, scalable public health prevention and population-level interventions are urgently needed.

Gaps in the Research Literature

Given the scope and consequences of student mental health challenges in higher education, this is an area that demands high quality research to facilitate evidence-based practice. Research to date has primarily focused on documenting and describing the problem (e.g., the prevalence and correlates of mental health disorders and help-seeking, variation across institution-types and student subpopulations). This important work has contributed to shifting student mental health from a stigmatized issue spoken about only in the shadows to one repeatedly reported by 73% of college presidents as their top concern (Turk, Soler, & Vigil, 2020; Turk, Soler, & Chessman, 2020). The findings also likely played a role in garnering federal funding and attention, such as the Substance Abuse and Mental Health Services Administration Suicide Prevention Grants and the National Academies of Sciences, Engineering, and Medicine report (Garraza, Boyce, Walrath, Goldston, & McKeon, 2018; National Academies of Sciences Engineering & Medicine, 2021; Walrath, Garraza, Reid, Goldston, & McKeon, 2015). However, the body of research describing the problem does not provide direction, guidance, or evidence regarding how to respond.

More recently, researchers have increasingly begun to investigate solutions and public health interventions to address the growing challenge of student mental health. However, the literature is dispersed in different academic disciplines and journals (Daenekindt & Huisman, 2020). Inconsistent study designs, outcomes, measurement, terminology, and organization makes it challenging to interpret and draw conclusions for practice. The work has not been coherently summarized for higher education decision-makers. In addition, the evidence-base overwhelmingly focuses on individual-level interventions. The role of interpersonal, community, and institutional interventions has been neglected (Byrd & McKinney, 2012). Interpersonal, community, and institutional interventions have the potential to be more cost-effective and scalable than individual interventions; they also hold promise for preventing mental health

problems, eliminating or reducing the need for treatment (Dooris, 2009; O'Connell, Boat, & Warner, 2009). Existing research has rarely focused on investigating how institutional policies, practices, and cultures contribute to the increasing incidence of mental health concerns and can be harnessed to promote mental health (Anderman, 2002; Eccles & Roeser, 2011; National Academies of Sciences Engineering & Medicine, 2021; Posselt, 2018; Strayhorn, 2012). Institutions need guidance on the systemic changes that will foster "learning environments where a changing student population can thrive" (National Academies of Sciences Engineering & Medicine, 2021, p.26). Rates of depression, anxiety, and help-seeking vary considerably across higher education institutions but little to no research has identified modifiable factors that account for this variation (Cress & Ikeda, 2003; Lipson, Gaddis, Heinze, Beck, & Eisenberg, 2015).

Existing college student mental health literature has also not dedicated enough focus to issues of equity and to populations facing inequities. Intervention research and policy evaluation in higher education has seldom targeted and measured mental health inequities as an outcome. Overall, research on college student mental health has rarely taken an intersectional approach that considers the experiences of students marginalized across multiple axes of their identity and reveals how institutional policies and practices shape these students' lives. Research is needed to identify institutional opportunities to undo racist, cissexist, classist, heterosexist, ablest systems to reduce mental health inequities and enhance mental health equity. The overall direction of my dissertation research is motivated by the dearth of research focused on solutions to the college student mental health crisis and public health opportunities for intervention at all levels of the socioecological model to address mental health equity in higher education. I will provide a fuller discussion of these and other gaps in the existing research literature in the body of the dissertation.

Dissertation Overview

This dissertation provides an integrated review of existing intervention evidence across every level of the socioecological model and conducts new research to advance understanding of institutional opportunities for enhancing mental health equity. It seeks to move the field of student mental health—both in terms of science and practice—beyond documenting the problem and focusing on individual-level change to advance institutional and policy-level solutions. In Study 1 (Chapter 2) I conduct a detailed review of evidence regarding the effectiveness of a wide

range of strategies to address student mental health. I organize the review according to levels of the socioecological model, examining individual, interpersonal, community, institutional, and public policy interventions to promote student mental health, prevent mental health disorders, and enhance mental health equity in higher education. I focus primarily on mental health conditions such as depression, anxiety, eating disorders, and suicide risk, as well as positive mental health such as the concept of flourishing. Alcohol and other substance use have clear connections to mental health but are not a focus of the review or dissertation. I conduct an integrative review, with purposive sampling, bibliographic database searching, and reference list checking in order to summarize and synthesize the vast relevant research literature (Grant & Booth, 2009; Sutton, Clowes, Preston, & Booth, 2019).

Study 2 (Chapter 3) examines diverse students' experiences with, attitudes toward, concerns about, and desire for change regarding how their campus is policed. Through a large, representative survey of students at a public university in the Midwest, I investigate students' 1) encounters with police while in college, querying frequency and quality of interactions with police as well as academic impacts; 2) attitudes toward police presence on campus, specifically whether it makes them feel safe and supports their mental health; 3) concerns about campus police; and 4) perspectives on policy changes under debate to improve public safety at their school. Across each area, I examine subgroups at the intersection of race and gender identity to address the experiences and perspectives of White cisgender men, White cisgender women, White TGGD students, Asian cisgender men, Asian cisgender women, Asian TGGD students, URM cisgender men, URM cisgender women, and URM TGGD students. Study 3 (Chapter 4) examines another area of institutional policy and more closely investigates impact on two key psychosocial outcomes, sense of belonging and suicidal ideation. I advance research on an understudied population, TGGD students, and construct, policy visibility. With representative survey data from 28 colleges, I investigate personal awareness and visibility of 3 TGGD-inclusive policies—inclusive nondiscrimination policies, gender inclusive restrooms, and pronoun options— and test for associations with psychosocial outcomes among and inequities between TGGD and cisgender students. Finally, in Chapter 5 I summarize major findings from Chapters 2-4 and discuss their implications for research, policy, and practice.

Theoretical Orientation

This dissertation is primarily guided and informed by socioecological theory (Bronfenbrenner, 1979; Sallis, Owen, & Fisher, 2008). Socioecological theory emphasizes the extent to which health is shaped by multiple, intersecting levels of influence. It led me to organize my literature review according to opportunities to intervene through shaping individual, interpersonal, community, and institutional factors as well as the enabling policy environment and to focus my empirical research on structural, institutional policies (Bronfenbrenner, 1979; Cohen, Scribner, & Farley, 2000; Mcleroy, Bibeau, Steckler, & Glanz, 1988). Ecological models in public health emerged from many disciplines and fields. Various models delineate different levels of influence (Sallis, Owen, & Fisher, 2008). For example, Bronfenbrenner (1979) described micro, meso, and macro levels of environmental effects on health behavior, encompassing rings of influence including family members, physical settings, policy, and other factors. In this dissertation I adopt McLeroy's model, which suggests the importance of intrapersonal, interpersonal, institutional, and public policy factors (McLaren & Hawe, 2005; Mcleroy et al., 1988).

My research is also informed by contemporary ecological models. They emphasize that the complex relationship between individuals and their social context is multidirectional, co-constitutive, and constantly in formation (Burke, Joseph, Pasick, & Barker, 2009). The co-constitutive aspect of contexts is an important but underrecognized principle of the ecological approach. It suggests that an important aspect of studying context "is the construction that participants, including observers and those being observed, make of" it (Kingry-Westergaard & Kelly, 1990; Richard et al., 2011, p.310). My focus on representative understanding, across a student body, of both experiences with and perspectives on campus policing draws from this work. As does my attention to personal policy awareness and visibility across the student body.

Ecological models, while they draw important attention to context, have been critiqued for not explicitly emphasizing considerations of social position and social stratification (Coll et al., 1996). Failure to attend to these systems, processes, and their consequences has undermined scientific understanding of the diversity and strengths of marginalized populations and hampered the identification of interventions that "lessen the deleterious effects" of the poor treatment and suboptimal conditions to which marginalized populations are subjected by those in dominant social positions (Coll et al., 1996, p.1892). This dissertation aims to focus on contextual influences and social mechanisms, such as racism, cissexism, prejudice, and discrimination, that

shape the experiences, lives, and mental health of SOC and TGGD students. Therefore, it also draws from frameworks and models that explicitly highlight their influence. For example, the Integrative Model for the Study of Development Competencies in Minority Children draws attention to the "preeminence of social position factors:…attitudes of individuals that societies use to stratify or place individuals in the social hierarchy" such as race, social class, and gender (Coll et al., 1996, p.1895). The model stresses the extent to which these social position factors are not additive or direct in their influence but interact to magnify or diminish impacts of racism, prejudice, discrimination, and oppression (Coll et al., 1996). It describes how three "major derivatives of social stratification"—social position, racism, and segregation—create inhibiting and promoting environments in schools that shape student lives and outcomes (Coll et al., 1996, p.1896). Study 2 (Chapter 3), for example, examines how race and gender interact to differentially shape experiences with campus police and create inhibiting or promoting environments in schools. Margaret Beale Spencer's phenomenological variant of ecological systems theory (PVEST) (Spencer, Dupree, & Hartmann, 1997) is an example of another model that brings explicit attention to the "problem of inequality as experienced through multiple layers of navigated contexts" (Velez & Spencer, 2018, p.75). Like Coll's Integrative Model, PVEST emphasizes "intersectionality's fore fronting of complex structures and social positionality—that power dynamics and interconnected systems lead to differential outcomes within socially constructed categories like class, race, and gender" while attending to the "how" and "why" of the process (Velez & Spencer, 2018, p.75). This dissertation is grounded in a core tenant of PVEST—that how individuals perceive and make sense of their experience is useful in identifying points for intervention (Spencer et al., 1997). My research draws on TGGD students' perceptions of their campus environments and assesses students' perceptions of policing on campus to identify points of policy intervention.

Other models and frameworks have expanded on the ecological model to specifically focus on the contextual influences and social mechanisms shaping the lives of TGGD individuals. For example, the gender minority stress framework (Hendricks & Testa, 2012), which was adapted from the minority stress model (Meyer, 2003), describes how anti-transgender stigma across all levels of the social ecological model results in adverse mental health outcomes among TGD populations (Gamarel, Reisner, Jean-Philippe, Nemoto, & Operario, 2014; Hendricks & Testa, 2012; Tan, Treharne, Ellis, Schmidt, & Veale, 2020;

Valentine & Shipherd, 2018; White Hughto et al., 2015). For example, structural stigma in the form of state laws that fail to protect TGGD access to or discrimination in healthcare, employment, transportation, and restrooms contributes to interpersonal stigma in the form of harassment, violence, discrimination, and mistreatment, which are correlated with depression, anxiety and suicide attempts (Clements-Nolle, Marx, Katz, et al., 2006; Hatzenbuehler, Keyes, & Hasin, 2009; Hendricks & Testa, 2012; Mcdowell, Hughto, & Reisner, 2019; Reisner, Hughto, et al., 2015). The gender minority stress framework, like Coll's Integrative Model and PVEST, emphasizes that stressors TGGD face in multiple environments, rather than gender variance itself, shapes outcomes – sometimes resulting in psychological problems but also resulting in resilience (Hendricks & Testa, 2012). Researchers have described how anti-transgender stigma operates at individual, interpersonal, and structural levels and identified intervention opportunities at each of those levels but also emphasized the extent to which research to date has primarily focused on individual and interpersonal forms of anti-transgender stigma and intervention (White Hughto et al., 2015). They call for future work to investigate structural interventions involving institutional policies, practices, and norms and specifically highlight the importance of inclusive nondiscrimination policies (National Academies of Sciences, Engineering, 2020; Pitcher, Camacho, Renn, & Woodford, 2018; White Hughto et al., 2015). My research on TGGD-inclusion policies responds to this call.

Contributions

This dissertation will expand knowledge and reorient us to the complex issue of student mental health in several ways. It addresses the demand from theory, research, policy makers, and leaders for greater understanding of how school contexts, institutional factors, and upstream policies impact mental health and health disparities (Eccles & Roeser, 2011; National Academies of Sciences Engineering & Medicine, 2021; Office of the Surgeon General, 2021b; Palmer, Ismond, Rodriquez, & Kaufman, 2019). It brings a particular focus on equity—attending to contextual factors in higher education that shape the mental health outcomes of students with multiple, intersecting identities too often marginalized by those in dominant social positions— and identifying where intervention research has not done so. Further, the dissertation will explore *how* school policy impacts student outcomes by investigating policy awareness and visibility. It focuses on policy arenas actively under revision in practice but not understood for their impact and advances the evidence-base to guide current decision-making. Broadly, the dissertation will

provide important information to all those working to improve student outcomes and equity on U.S. college campuses, which serve more than half of our nation's young people (McFarland et al., 2018). Attention to the impact of school factors and upstream policy on student mental health and the responsibility of institutions "for forming learning environments where a changing student population can thrive" will hopefully help motivate and guide changes that can ultimately improve student outcomes in an equitable manner (Bauman, Bustillos, Benisimon, Brown, & Bartee, 2005; Dunn, Milliren, Evans, Subramanian, & Richmond, 2015; Jayakumar, Garces, & Park, 2018; Ledesma, 2016; O'Connell, Boat, & Warner, 2009; Palmer et al., 2019; Pascarella & Terenzini, 2005; Titus, 2004; Valencia, 1997).

CHAPTER 2: Mental Health in College Populations: A Multidisciplinary Review of What Works, Evidence Gaps, and Paths Forward

Introduction

When college and university presidents are asked about their most pressing concerns, the mental health of students rates as the most common response (Turk, Soler, & Vigil, 2020). These concerns have been growing over time, starting well before the COVID-19 pandemic. The number of students reporting psychological distress—such as suicidal thoughts and depressive and anxiety symptoms—approximately doubled from 2009 to 2019 (Duffy et al., 2019). Similarly, students are seeking mental health care at ever-increasing rates, and campus counseling and health centers are struggling to keep up (Center for Collegiate Mental Health, 2020; Lipson, Lattie, et al., 2019). Student mental health has implications not only for health and wellbeing but also for academic outcomes such as grades and retention (Eisenberg, Golberstein, et al., 2009).

To guide responses to these challenges, several national organizations have gathered input from experts and stakeholders. For example, a Consensus Report from the National Academies of Sciences, Engineering, and Medicine (2021) summarizes the situation and lays out broad principles for solutions. The Jed Foundation has developed a framework for improving campus mental health systems (Jed Foundation, 2019), and the Steve Fund, in collaboration with Jed, has issued a framework with a focus on mental health equity and students of color (equityinmentalhealth.org). Other organizations including the American College Health Association (ACHA), NASPA, and the American Council on Education (ACE) have also produced a variety of reports addressing student mental health (e.g., Douce & Keeling, 2014; Wesley, 2019).

These important reports and frameworks, however, do not provide a detailed review of evidence regarding the effectiveness of strategies to address college student mental health. In fact, an integrated review of interventions across all levels of the socioecological model (**Figure 2.1**), does not exist. This chapter aims to fill this gap by examining what is known about the effectiveness of programs, services, practices, and policies to address student mental health,

using a socioecological framework that covers individual, interpersonal, community, institutional, and public policy levels of intervention. I provide an integrative review, focusing on translating research for practice (Sutton et al., 2019). I aim to bring together a variety of threads that have often existed in relative isolation from each other in research and practice. Research in higher education draws from many different academic disciplines, and each discipline or even individual researcher tends to focus on certain levels of influence and intervention more than others (e.g., individual versus institutional) (Daenekindt & Huisman, 2020). Similarly, current practice to support student mental health is often fragmented across many areas of campus life, even if it is typically concentrated with counseling and health services. This review draws deliberately from a variety of disciplines that have made contributions relevant to student mental health across all levels of the socioecological model.

Figure 2.1. *Socioecological Model and Organizing Framework for Intervention Evidence*

I take a public health approach and broadly consider programs, policies, and practices to promote mental health, prevent mental health disorders, and support the growing portion of students in higher education experiencing depression, anxiety, eating disorders, suicidality, and other mental health disorders. Mental health is "a state of wellbeing in which every individual realizes [their] own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to [their] community" (World Health Organization, 2002, p. 5). It exists on a dual continuum that includes positive mental health (flourishing) and poor mental health (languishing) on one axis, and the presence or absence of mental illness symptoms on another axis (Keyes, 2007; Peter, Roberts, & Dengate, 2011; Westerhof & Keyes, 2010). Promoting mental health and preventing mental illness are "essential and complementary steps" for reducing the burden of disease and for achieving the academic, social, and economic outcomes valued by higher education (Keyes, 2007; Winzer, Lindberg, Guldbrandsson, & Sidorchuk, 2018, p. 3; World Health Organization, 2002).

A number of valuable sources review interventions that address specific mental health disorders (e.g., depression: Buchanan 2010), promote specific protective factors (e.g., sleep:

Friedrich & Schlarb 2018), reduce specific risk factors (e.g., stigma: Yamaguchi et al., 2013), or are delivered in a specific format (e.g., computer-delivered: Davies et al. 2014). Prior reviews examine a large volume of interventions and are located in a wide range of journals (e.g., *Journal of American College Health*, *Journal of Sleep Research*, *Prevention Science*, *Journal of Affective Disorders*, *Journal of Medical Internet Research*) representing numerous fields, including college health, public health, mental health, psychology, and sociology. Many methods for organizing and evaluating evidence are used, making it challenging for higher education researchers and practitioners to comprehensively assess the current state of evidence, gaps, and future directions for research. Below I outline some of these methods; I also clarify why I chose to organize this review based on the socioecological model.

Organization of Intervention Review

Several sources in the literature use a public health prevention framework to classify college student mental health interventions. For example, Cimini and Rivero (2018) describe the importance of behavioral health promotion, early intervention, and specialized interventions (**Figure 2.2**). Health promotion, sometimes referred to as primary or universal prevention, includes efforts to promote health and prevent problems across all students (O'Connell et al., 2009). Early intervention, sometimes referred to as secondary prevention, includes efforts to identify and address students at risk (O'Connell et al., 2009). Specialized interventions, sometimes referred to as indicated or tertiary prevention, aim to reduce severity and negative impacts among students who have developed mental health symptoms (O'Connell et al., 2009). I do not use a prevention framework to organize the review since intervention types and institutional efforts in higher education often cut across levels of prevention and intervention.

Figure 2.2. Behavioral Health Prevention Spectrum

Treat Problems — **Specialized Interventions**
- Treatment services
- Support & recovery groups
- Victim services

Prevent Problems — **Early Intervention**
- Screening interventions
- Gatekeeper training
- Skills training for students at-risk
- Means restriction

Optimize Health — **Behavioral Health Promotion**
- Social norms campaigns
- Peer health education
- Positive psychology curriculum

Note. Figure depicts a prevention framework for addressing student mental health, as depicted by Cimini and Rivero (2018).

I considered reviewing evidence for interventions according to who implements them: mental health providers, student affairs practitioners, faculty, or financial aid officers, for example. However, many evidence-based interventions are relevant and require coordination across positions and settings within higher education (student affairs, academic affairs, health, and wellness services) for adoption and evaluation. I aim instead to present information for cross-disciplinary teams of researchers and practitioners working to address student mental health. Likewise, I chose not to review intervention evidence by target outcome (e.g., depression, anxiety, eating disorders) because of the unique opportunity within colleges to broadly develop student strengths to face current and future stressors, enhance mental health, and prevent many types of mental health disorders (Conley et al., 2013).

I instead categorize interventions according to levels of the socioecological model, a framework for understanding varying factors influencing health and wellbeing (Bronfenbrenner, 1979; Mcleroy, Bibeau, Steckler, & Glanz, 1988). This approach aligns with global *Healthy University* frameworks and initiatives (Dooris & Doherty, 2009; Orme & Dooris, 2010; Tsouros, Dowding, Thompson, & Dooris, 1998). I group interventions according to whether they target individual, interpersonal, community, or institutional factors or public policy (**Figure 2.3**). In each section below, I present what is known about changing individuals, relationships, community norms, institutional factors, and public policy to improve student mental health, with an eye toward what institutions have the power to influence.

By reviewing interventions according to levels of the socioecological model, I aim to bring attention to the degree to which student mental health is influenced by multiple, interacting layers of context: intrapersonal/individual factors, interpersonal factors (family, friends, peers), school contexts, and distal social, economic, and political contexts. I call attention to the focus of existing research on intrapersonal factors and interventions, as well as higher education's opportunities to enhance mental health through intervention at community, institutional, and policy levels. In reviewing current evidence regarding how colleges shape these factors to influence mental health, I acknowledge that pathways to mental health are not universal but vary across racial/ethnic, social class, citizenship, gender, and sexuality due to "differences in culture, family resources, school quality, community supports, and economic and social conditions" (Perna & Thomas, 2008, p. 32). I assess the degree to which the research literature has taken diversity in pathways to mental health into account.

Figure 2.3. *Intervention Types to Address College Student Mental Health Across Socioecological Levels*

| INDIVIDUAL | INTERPERSONAL | COMMUNITY | INSTITUTIONAL | PUBLIC POLICY |

+ Psychoeducational
+ Coaching
+ Skill-training
  -Mindfulness
  -Cognitive-behavioral
  -Relaxation
  -Meditation
+ Identity-support

+ Peer
  -Health education
  -Support
+ Family
+ Faculty & Staff
+ Social skills
+ Belonging

Enhance interpersonal protective factors + reduce harms

+ Gatekeeper training
+ Screening
+ Post-crisis intervention
+ Learning environment
  -Curriculum
  -Reduce stressors
  -Promote conditions
   for well-being

+ Physical environment
  -Means restriction
  -Health promoting
+ Policies
  -Substance use
  -Sexual assault
  -Leave of absence
  -Equity & Inclusion
  -Financial aid
+ Public safety & policing

+ Federal, state, local:
  -Offering
   protections
  -Providing funding
  -Creating barriers
   or facilitators to
   risk & protective
   factors

Note. Figure presents a socioecological framework for understanding the diverse array of available interventions to address student mental health in higher education. Individual interventions address knowledge, attitudes, help-seeking, skills, and strengths. Interpersonal interventions enhance interpersonal protective factors (e.g., social support, belonging) and reduce harms (e.g., discrimination). Community interventions address norms and the environment. Institutional interventions alter physical spaces, policies, and investments under the control of colleges and universities. Public policy interventions shape colleges' abilities to invest in and support student mental health.

I focus on scientific evaluations of interventions, but I note there are additional bodies of evidence that address the context and conditions under which effective interventions can be developed, implemented, and sustained. I encourage higher education researchers and practitioners to also consider the evidence base from implementation science, prevention science, organizational change and development, and literature covering effective partnerships (e.g., community-based participatory research) when designing, implementing, and evaluating interventions to address student mental health.

I do not cover clinical services such as psychotherapy and psychiatric medication. Though these are core components of current approaches to student mental health, their evidence base is extensively documented elsewhere, with well-established clinical guidelines from professional organizations (e.g., American Psychiatric Association, American Psychological Association) (Cuijpers et al., 2016; Francis & Horn, 2017; Huang, Nigatu, Smail-Crevier, Zhang, & Wang, 2018; Kay & Schwartz, 2010; Riba & Menon, 2021). Analysis of data from the Center for Collegiate Mental Health has shown that routine psychotherapy care in college counseling centers is generally effective, although there is room for improvement (McAleavey et al., 2019). Providers skilled at serving students with marginalized identities are needed (Riba & Menon, 2021). Integration of primary care and mental health care in *collaborative care models* is a recent advancement, for college students, and others (Chung et al., 2011). Ongoing research on "traditional" care models is needed; however, I expand this research by focusing on public health interventions for addressing college student mental health.

Methodological Approach

I conduct an integrative review to guide the summary and analysis of a vast, multidisciplinary literature (Sutton et al., 2019). I employ bibliographic database searching of several databases including PubMed, PsycINFO, ERIC, and Google Scholar. All searches included the outcomes (e.g., mental health, depression, anxiety, psychological distress) and settings (e.g., college, university, higher education) of interest. An iterative, collaborative process was used to identify and categorize intervention types within socioecological levels whereby an initial phase of searching identified intervention types within each level and a second phase of searching included keywords relevant to each identified intervention type to review the evidence-base pertaining to that type of intervention. For example, an initial search for interpersonal interventions in college, university, or higher education settings focused on mental health,

depression, anxiety, eating disorders, psychological distress or psychological wellbeing identified several intervention types within this socioecological level. A second phase of searching, using keywords such as peer educators, peer education, peer interventions, family, faculty, staff, social support, and belonging then identified the evidence-base for these types of interventions. Search methods additionally included reference list checking, contact with experts, and identifying articles based on personal knowledge (Cook, Purdie-Vaughns, Meyer, & Busch, 2014; Grant & Booth, 2009; Sutton et al., 2019). Where meta-analyses and reviews existed (e.g., for individual-level interventions), these were reviewed and summarized and the primary literature was identified and reviewed as necessary (e.g., to identity study sample characteristics). The overall aim was to identify the types of interventions that have been attempted, and the strength and quality of evidence for these intervention types. A systematic review of every intervention was beyond the scope of the research and thus the specific studies included should be considered representative, not exhaustive (Cook et al., 2014).

Individual-Level Interventions

The most common strategies employed by colleges to address student mental health are those that target individual students' knowledge, attitudes, coping and help-seeking behaviors, risk and protective factors, and mental health symptoms. These are also the most commonly evaluated programs in the empirical literature. A robust and growing evidence-base supports the efficacy of such interventions (Buchanan, 2012; Cimini & Rivero, 2018a; Conley, Durlak, & Kirsch, 2015; Conley, Durlak, Shapiro, Kirsch, & Zahniser, 2016; Reavley & Jorm, 2010; Regehr, Glancy, & Pitts, 2013; Rith-Najarian, Boustani, & Chorpita, 2019; Shiralkar, Harris, Eddins-Folensbee, & Coverdale, 2013; Yager & O'Dea, 2008). Many types of interventions target individual factors, each with a different degree of evidence. Key types include:

- **Psychoeducational interventions:** provide information targeting students' knowledge of and attitudes toward stress, coping, mental health symptoms, and mental health resources.
- **Coaching interventions:** change behavior through goal-directed, collaborative strategies, often through motivational interviewing.
- **Skill-training interventions**: teach students social, emotional, and coping skills.

- **Identity-support interventions:** support students' sense of identity, including but not limited to racial, ethnic, sexual, or gender identity.

While there is potential for overlap across these intervention types (e.g., skill-training interventions that include psychoeducation), they represent largely distinct categories in practice (e.g., mental health coaching interventions rarely focus on skill-training). I review evidence for these individual-level intervention types in the section that follows. Robust reviews by the *Improving Mental Health and Promoting Adjustment through Critical Transitions Lab*, led by Dr. Colleen Conley, contribute significantly to this section.

Psychoeducational Interventions

Psychoeducational interventions are didactic programs focused on providing information (Durlak, 1997). Within mental health, their goal is increasing mental health literacy—students' knowledge, attitudes, and beliefs about mental health disorders and treatments (Schwartz & Davar, 2018). They are based on the premise that providing information will motivate and enable individuals to act effectively to prevent or respond to various negative outcomes (Conley et al., 2015). For example, educating students about common pressures they are likely to encounter in college and healthy coping strategies is expected to help reduce future stress (e.g., Walker & Frazier, 1993). Providing symptom information on mental health disorders and where to turn for support is expected to facilitate help-seeking when a student experiences depression or anxiety (Xu et al., 2018).

Although psychoeducation is common in higher education, the evidence for effectiveness is generally weak. Across studies, settings, formats, and populations, psychoeducational interventions for mental health are minimally effective in improving attitudes, changing behaviors, fostering skills, or preventing problems (Conley, Durlak, & Dickson, 2013; Conley et al., 2015, 2016; Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012; Durlak, 1997; Stice, Shaw, & Marti, 2007; Yager & O'Dea, 2008; Yamaguchi et al., 2013).

One common approach addresses stigma surrounding mental health disorders. A meta-analysis of 72 interventions implemented in and outside of higher education to reduce mental health stigma found weak effects of traditional didactic education on changing attitudes (d=.21) and behavioral intentions (d=.10), assessed via randomized controlled trials (RCTs) (Corrigan et al., 2012). These findings were replicated in a systematic review of short-term anti-stigma

interventions (three sessions or fewer) for college students (Yamaguchi et al., 2013). Yamaguchi and colleagues (2013) reviewed 35 RCTs, clinical controlled trials, and controlled before and after studies and found that improvements in knowledge and attitudes were sustained over medium-term (4 weeks or less) in only half of the studies. They concluded, as have others, that interventions involving exposure to someone with a mental health disorder are more effective than education-only interventions (Clement et al., 2013; Corrigan et al., 2012; Thornicroft et al., 2016; Yamaguchi et al., 2013). However, regardless of social contact, there was no evidence for effectiveness long-term or on actual behaviors and methodological weaknesses in the reviewed studies were common (Mehta et al., 2015; Yamaguchi et al., 2013). Finding only small short-term impacts on attitudes, little evidence for impact on behavior or behavioral intentions, and methodological weaknesses is common across psychoeducational anti-stigma interventions adopted in a wide range of settings with a wide range of participants (Clement et al., 2013; Corrigan et al., 2012; Mittal, Sullivan, Chekuri, Allee, & Corrigan, 2012; Thornicroft et al., 2016). For example, while Corrigan and colleagues' (2012) meta-analysis of 72 interventions found large effects of contact interventions in changing attitudes in the short term (d=.63 compared to .21 for psychoeducation only), they found only small effects on behavioral intentions (d=.27 compared to .10 for psychoeducation only). Small effects on behavioral intentions and other evidence of mixed or null associations between stigmatizing attitudes and mental health service use among college students (Eisenberg, Downs, et al., 2009; Golberstein, Eisenberg, & Gollust, 2009; Gulliver, Griffiths, Christensen, & Brewer, 2012; Han, Chen, Hwang, & Wei, 2006) suggests that anti-stigma programs that target behavioral outcomes influenced by the stigmatization process will be necessary for connecting individuals to care and ensuring the inclusion of students with a mental illness (Stuart, 2016; Yamaguchi et al., 2013).

 Psychoeducational interventions are also largely ineffective for developing social-emotional skills and improving mental health in college students. Conley (2015) reviewed evaluations of 113 social-emotional learning-related prevention and promotion programs: of the 28 didactic-only (not skill-oriented) interventions identified, only four were successful (Jones, 2004; MacLeod, Coates, & Hetherton, 2008; Mattanah et al., 2010; Walker & Frazier, 1993). In a systematic review of controlled universal mental health prevention programs (targeting students without any presenting problems), psychoeducation interventions yielded smaller average effects (effect size (ES)=0.13) and were effective for fewer outcomes than skill-based

interventions with supervised skills practice (ES=0.45). In a meta-analytic review of technology-delivered mental health interventions for higher education students, psychoeducation programs were the least effective (Conley et al., 2016). Similar findings have been noted in reviews of interventions addressing factors related to student mental health such as sleep (Dietrich, Francis-Jimenez, Knibbs, Umali, & Truglio-Londrigan, 2016; Friedrich & Schlarb, 2018). For example, a systematic review demonstrated that interventions providing sleep hygiene education had small effect sizes on sleep and mental health, whereas cognitive-behavioral and relaxation techniques had medium to large effects on those outcomes (Friedrich & Schlarb, 2018). Eating disorders, like sleep problems, are common in college students, connected to additional mental health problems, and often specifically targeted for prevention. Available evidence (in and outside of higher education) suggests that psychoeducational content may be the least useful approach and in some cases might undermine relevant outcomes (Stice et al., 2007; Yager & O'Dea, 2008).

Most reviews are critical of the methodological quality of included psychoeducational intervention studies and note a need for more RCTs, better and validated outcome measures, and longer-term follow-up (Clement et al., 2013; Thornicroft et al., 2016; Mehta et al., 2015; Mittal et al., 2012; Schachter et al., 2008; Stuart, 2016; Yamaguchi et al., 2013). They also note the poor quality of studied interventions, which often lack theoretical grounding, adequate training, manuals, or fidelity checks (Clement et al., 2013; Corrigan et al., 2012; Mehta et al., 2015; Mittal et al., 2012). Overall, there is enough evidence to conclude that psychoeducation is not effective as an independent or primary approach to mental health interventions in higher education (Conley et al., 2015, 2016, 2017; Conley, Travers, & Bryant, 2013; Durlak, 1997).

Coaching Interventions

An emerging class of interventions involving motivational interviewing (MI) and coaching attempt to change behaviors related to mental health more directly. MI is a "goal-directed, collaborative form of counseling that leverages a client's autonomy to strengthen [their] intrinsic motivation to change" (Hettema, Steele, & Miller, 2005; Hom, Stanley, & Joiner, 2015, p. 34; Lundahl et al., 2013). It is based on a participant-centered, empathetic approach that incorporates techniques—developing discrepancy between participant behaviors and values, reflective listening, supporting positive actions, and rolling with resistance—to guide the participant beyond ambivalence toward lifestyle changes (Rash, 2008). These might include increasing health behaviors (sleep, exercise) or decreasing risk behaviors (smoking).

In higher education settings, MI has been implemented by both trained clinicians and peers (ACHA, 2020). The technique has primarily been used to address substance use (Carey, Henson, Carey, & Maisto, 2007; Samson & Tanner-Smith, 2015), but it is increasingly used in mental health, wellness, help-seeking, depression, and suicide interventions. For example, MI has empirical support for increasing treatment engagement for mental health disorders and suicide (Baker & Hambridge, 2002; Britton, Patrick, Wenzel, & Williams, 2011; Humfress et al., 2002; King et al., 2015). Incorporating MI principles in an online intervention for college students who screened positive for suicide risk was found, through a pilot RCT, to enhance readiness to engage in mental health treatment above and beyond a personalized feedback-only intervention (King et al., 2015). However, the researchers called for further testing of the intervention's long-term effects.

Researchers hypothesize MI may be a helpful approach for facilitating mental health help-seeking in men in particular (Sagar-Ouriaghli, Godfrey, Bridge, Meade, & Brown, 2019); a gender-related pattern is also observed in studies of academic coaching and college student success (Bettinger & Baker, 2014). A pilot study of a single-session MI intervention for college men with internalizing symptoms found a significant effect on seeking help from parents and a trend for seeking professional help at 2-month follow-up (Syzdek, Green, Lindgren, & Addis, 2016). Interestingly, a systematic review and meta-analysis of 98 mental health help-seeking interventions (some implemented with college students) found that interventions using MI were only beneficial at long-term follow-up, indicating that it may take time for acquired motivation and skills to translate into real-life help-seeking decisions (Xu et al., 2018).

In higher education settings, MI is increasingly being used as a key component of wellness coaching (ACHA, 2020). Wellness coaching is described as an "innovative approach for promoting mental health and academic achievement among all students" (Gibbs & Larcus, 2014, p. 23). The method is based on a holistic model of wellness, is grounded in positive psychology, and supports students' ability to thrive academically, socially, and emotionally (Gibbs & Larcus, 2014; Schreiner, 2010) through the provision of resources, coping skills, and wellness-oriented goal-setting/attainment opportunities (ACHA, 2020). Formal evaluations are needed to determine its effectiveness in promoting mental health, preventing mental health problems, fostering help-seeking, and supporting student wellness across multiple domains. The

use of peers as coaches may make it a cost-effective, scalable model to implement (ACHA, 2020).

Skill-Training Interventions

In addition to psychoeducation, skill-training is a primary strategy that has been used with college students to promote mental health and prevent problems. Extensive evidence suggests that skill-training interventions effectively promote positive adjustment and prevent negative adjustment in children, adolescents, and college students (Cimini & Rivero, 2018a; Conley et al., 2015; Durlak, 1997; Howard, Schiraldi, Pineda, & Campanella, 2006; McDonald, Pritchard, & Landrum, 2006; Stice et al., 2007; Yager & O'Dea, 2008). The approach is:

> "based on the premise that the behavioral skills that may be instrumental in preventing negative outcomes…must be systematically taught to participants along with training on how to apply new skills. Depending on their specific aims, interventions typically emphasize procedures such as cognitive restructuring, relaxation, mindfulness, conflict resolution, various coping strategies..." (Conley et al., 2015, p. 488).

Supervised practice—behavioral rehearsal and supportive feedback— is an essential, but not universally employed, component of skill-training interventions (Conley, 2015; Conley et al., 2015). Extensive research documents the importance of supervised practice over multiple sessions for learning new skills in college populations and adolescent, young adult, and adult populations more broadly (Conley et al., 2015). Reviews of college mental health interventions find 22-27% of skill-training programs do not include this component (Conley, 2015; Conley et al., 2015).

While further research is warranted to understand the heterogeneity within supervised skill-training interventions, Conley et al.'s (2015) review of 103 controlled studies suggests they are demonstrably more effective (ES=.45) than psychoeducational (ES=.13) and skill-training without supervised practice (ES=.11) universal prevention interventions. Overall, skill-training interventions with supervised skill practice have moderate effects on reducing depression (ES=.39), anxiety (.55), stress (.55), and general psychological distress (.32) and enhancing social-emotional skills (.37), self-perceptions (.35), and academic behaviors and performance (.30) (Conley et al., 2015). Supervised skill-training interventions outperformed other intervention types in terms of overall effect size, number of outcome areas with significant effects, and sustained impact over time (Conley et al., 2015). The effectiveness of skill-training interventions with supervised practice in preventing psychological distress among college

students is impressive compared to other universal prevention programs and treatments (Conley et al., 2015). For example, Conley et al. (2015) found supervised skill-training interventions' mean effect on preventing anxiety to be "comparable to results… in meta-analyses of treatment for anxiety problems" (p. 500). These interventions have also been found to be effective for improving social-emotional skills and adjustment in higher education settings (Conley, 2015; Schwartz & Davar, 2018). In a review of 113 social-emotional learning-related prevention and promotion programs in higher education, Conley (2015) found that skill-oriented programs with supervised practice are effective for promoting social-emotional adjustment in the short-term[1], whereas skill-training programs without supervised practice are ineffective.

Several types of skill-training interventions exist, with varying degrees of effectiveness. First, cognitive-behavioral interventions focus on monitoring cognitions—replacing disruptive and irrational thinking with more adaptive patterns—and using these cognitions effectively to change behaviors and emotions (Conley et al., 2015; Howard et al., 2006). While somewhat variable in their methods, cognitive-behavioral interventions promote coping skills and skills such as identifying triggers of stress, restructuring cognitions, and managing stress (Conley, 2015). For example, a 6-week intervention focused on teaching college students self-awareness (of thoughts, bodily sensations, and their connection), self-management (e.g., challenging cognitive distortions), and decision making (e.g., goal-setting) skills through guided weekly practice and reminders, daily log keeping, and supervised practice (Deckro et al., 2002). It reduced psychological distress, state anxiety, and perceived stress in an RCT (Deckro et al., 2002). Cognitive-behavioral interventions are relatively common: 36% of universal mental health prevention programs for higher education students identified by Conley and colleagues (2015) were classified as such.

Meditation interventions involve a wide range of meditation techniques, including transcendental meditation and yoga, to enhance self-awareness and self-management. These practices, which often involve focusing on a single item (e.g., breath, sound, body part) and disregarding distracting thoughts or sensations, are thought to enhance one's ability to manage stress through physiological effects such as reduced arousal and increased relaxation (Conley, 2015). Nearly 10% of universal mental health prevention programs for higher education

---

[1] Outcomes assessed immediately following the intervention period

reviewed by Conley and colleagues (2015) were meditation interventions. Mindfulness interventions target similar outcomes but rely on a different set of techniques, such as those in the Mindfulness Based Stress Reduction program developed by Kabat-Zinn (1990), to train the mind to function in a nonjudgmental and present manner. Mindfulness interventions are somewhat less common (8.7% of universal prevention interventions reviewed by Conley et al., 2015), but are highly effective (Conley et al., 2015). *Learning to BREATHE* is one example of an evidence-based multi-session mindfulness program that has improved psychological wellbeing among first-year college students (Dvořáková, Greenberg, & Roeser, 2019; Mahfouz et al., 2018; Tang, Broderick, Bono, Dvoráková, & Braver, 2020). Finally, relaxation interventions teach students (using tools like biofeedback) strategies such as progressive muscle relaxation, guided imagery, and breathing techniques to reduce psychological distress outcomes, including physiological indicators of stress (Conley, 2015). Almost 17% of universal prevention interventions reviewed by Conley et al. (2015) were identified as relaxation programs. Finally, some skill-training programs focus on interpersonal skills; these will be discussed below in the interpersonal section.

Several reviews have compared effectiveness of various skill-training intervention types among college students. Mindfulness programs with supervised practice are the most successful. They most effectively improve social-emotional skills (e.g., coping, positive thinking, emotional and stress management) and enhance self-perceptions (e.g., self-esteem, self-actualization) (Astin, 1997; Conley, 2015; Oman, Shapiro, Thoresen, Plante, & Flinders, 2008; Rosenzweig, Reibel, Greeson, Brainard, & Hojat, 2003; Sears & Kraus, 2009; Shapiro, Brown, & Biegel, 2007; Shapiro, Oman, Thoresen, Plante, & Flinders, 2008; Shapiro, Schwartz, & Bonner, 1998). Looking at interventions evaluated in at least three trials, mindfulness programs with supervised practice improved emotional skills 78% of the time (Conley, 2015).

Mindfulness interventions are also highly effective at reducing emotional distress (Conley, Durlak, et al., 2013; Conley et al., 2015; Regehr et al., 2013). Conley et al.'s (2013) review of universal promotion and prevention programs for higher education students identified 7 mindfulness interventions among the 83 controlled programs examined; all effectively modified assessed outcomes. Recent research suggests they also advance positive mental health (flourishing) (Long, Halvorson, & Lengua, 2021). While rare among indicated prevention programs for college students (1 of 79 controlled indicated interventions identified) (Conley et

al., 2017), reviews indicate that mindfulness interventions have been effective in reducing mental health symptoms in clinical and medical populations (Hofmann, Sawyer, Witt, & Oh, 2010; Keng, Smoski, & Robins, 2011) and reducing stress, enhancing wellbeing, and improving academic outcomes in a variety of settings (Chiesa & Serretti, 2009; Davidson et al., 2003; Eberth & Sedlmeier, 2012), including schools (Zenner, Herrnleben-Kurz, & Walach, 2014). A review of psychological interventions to improve sleep in college students also found large positive effects of mindfulness interventions on mental health, suggesting they might be important for addressing comorbid mental health and sleep problems (Friedrich & Schlarb, 2018). For example, Greeson and colleagues (2014) found college students in the popular "Koru" mindfulness program (four 75-minute sessions) had fewer sleep problems, less stress, and more mindfulness and self-compassion compared to those in the waitlist control group after 4 weeks. Research from outside of higher education provides guidance on the importance of and strategies for developing culturally-responsive mindfulness interventions (Duane, Casimir, Mims, Kaler-Jones, & Simmons, 2021; Proulx et al., 2018; Watson-Singleton, Black, & Spivey, 2019; Watson-Singleton, Pennefather, & Trusty, 2021).

Cognitive-behavioral and relaxation interventions with supervised practice show promise for improving social-emotional skills and reducing psychological distress in college students (Conley, 2015; Regehr et al., 2013). They improved social-emotional outcomes 33-66% of the time in Conley's (2015) review of interventions evaluated in at least three trials. Cognitive-behavioral interventions impact similar social-emotional outcomes as mindfulness programs and also strengthen interpersonal relationships (Conley, 2015). Relaxation interventions reduce emotional and physiological distress outcomes (Conley, 2015). More common than mindfulness programs among indicated mental health interventions for college students, Conley et al. (2017) found social skill-training interventions (see below) yielded the highest effect sizes but cognitive-behavioral and relaxation interventions followed. Consistent with previous reviews and meta-analyses, cognitive-behavioral interventions have been identified as the most effective approach for treating sleep disorders in college students (Friedrich & Schlarb, 2018; Koffel, Koffel, & Gehrman, 2015), but relaxation interventions, like mindfulness interventions, had the largest effects on the mental health outcomes in these studies (Friedrich & Schlarb, 2018).

In contrast to mindfulness, cognitive-behavioral, and relaxation interventions, meditation programs with supervised practice have minimal evidence for effectiveness (Conley, 2015;

Conley et al., 2015, 2017), and they are ineffective at improving emotional skills in college students (Conley, 2015; Kindlon, 1983; Zuroff & Schwarz, 1978). Overall, further research is needed to understand heterogeneity and key elements for effectiveness within the skill-training intervention category. But substantial evidence demonstrates that mindfulness, cognitive-behavioral, and relaxation skill-training interventions (with supervised practice) may be powerful tools for promoting mental health and preventing metal health problems among college students.

Identity-Support Interventions

Interventions targeting factors related to students' identity are potentially powerful but mostly unexplored for impacting mental health. Experiencing interpersonal, communal, and structural harms, such as racism and discrimination, is unfortunately a common part of college for SOC, sexual and gender minorities, students with disabilities, and others. These harms negatively impact student mental health (Goodwill, Taylor, & Watkins, 2021; Hwang & Goto, 2008; Pieterse, Carter, Evans, & Walter, 2010; Woodford, Kulick, Sinco, & Hong, 2014). College leaders have many opportunities to intervene to reduce such experiences; these interventions are discussed in the following sections. However, there is evidence that individual factors, such as racial and cultural socialization (e.g., cultural pride), private and public regard, and identity salience, moderate the relationship between discrimination and mental health consequences (Keels et al., 2017; Lee, 2005; Reynolds & Gonzales-Backen, 2017; Umana-Taylor, Tyes, Toomey, Williams, & Mitchell, 2015). For example, research suggests that positive feelings about one's racial-ethnic group (high private regard) and recognition of negative societal perceptions of one's racial-ethnic group (low public regard) may protect Black and Latinx college students from the negative mental health repercussions of experiencing racial-ethnic discrimination (Sellers et al., 2003; Sellers, Copeland-Linder, Martin, & Lewis, 2006). In samples of both adolescents and young adults, greater ethnic-racial socialization messages have been found to buffer against the negative effects of experiencing discrimination (Reynolds & Gonzales-Backen, 2017). In a longitudinal study, empowered racialization messages (warnings about discrimination combined with strategies for overcoming racial prejudice) received in late adolescence partially buffered respondents against the mental health consequences of racial discrimination at age 20-22 (Granberg, Edmond, Simons, Lei, & Gibbons, 2012). For lesbian, gay, bisexual, and queer (LGBQ) college students, self-acceptance (self-esteem and internalized

identity pride) mediates the pathway from discrimination to psychological distress for heterosexism and microaggressions (Woodford, Kulick, et al., 2014).

I am not aware of interventions evaluated in the empirical literature to promote these protective factors among college students, but scholars have suggested the value of doing so in clinical settings (e.g., Reynolds & Gonzales-Backen, 2017) and interventions with younger adolescents suggest the value of enhancing such identity assets (Anderson, McKenny, & Stevenson, 2019). Interventions in this arena might also aim to intervene with mediators between racism, discrimination, and mental health. For example, "internalized racial oppression, adopting the negative beliefs about one's group, is one pathway through which racism affects mental health" (Banks et al., 2021, p. 89). Banks and colleagues (2021) piloted a group-based intervention for Black women (including eight college students) and found that employing techniques from Acceptance and Commitment Therapy decreased internalized racial oppression and shame, and psychological distress. While priority should be placed on eliminating bias, racism, and discrimination, in the meantime, more work is needed to develop and test interventions to protect students from the mental health consequences of these harms.

Delivery Format

Interventions targeting individual-level factors, as reviewed above, have been delivered in various formats: individually or in group-settings, in-person or online, through one or repeated sessions, and by trained individuals or self-administered. Not all intervention reviews delineate whether interventions were administered to individuals or in groups. However, Conley et al. (2017) found that across indicated face-to-face mental health interventions, "individual interventions (ES = 1.08) yielded larger effects than group interventions (ES = 0.60), although both were associated with positive effects" (p. 133). Across studies and outcomes, face-to-face mental health interventions are generally more effective than technology-delivered interventions (TDI) in higher education for both behavior change and increasing help-seeking (Xu et al., 2018) and universal and indicated prevention (Conley et al., 2016, 2017; Rith-Najarian et al., 2019). The mean effect size for universal TDIs (0.21; Conley et al., 2016) is significantly lower than universal face-to-face interventions (0.45; Conley et al., 2015) and face-to-face interventions positively impact a greater number of outcomes. Similarly, the mean ES for indicated skill-training TDIs (0.39; Conley et al., 2016) is significantly lower than indicated skill-training face-to-face interventions (0.64; Conley et al., 2017), and face-to-face interventions positively impact

a greater number of outcomes. The mean ESs for indicated face-to-face interventions are 1.74 to 2.56 times higher than the respective ESs for TDIs (0.73 vs. 0.42 for depression, 0.67 vs. 0.30 for anxiety, and 0.46 vs. 0.18 for general psychological distress) (Conley et al., 2016). While face-to-face interventions are overall more effective than TDIs, there is growing evidence that both universal and indicated TDIs achieve some positive effects among higher education students (Conley et al., 2016; Davies, Morriss, & Glazebrook, 2014; Harrer et al., 2019; Lattie et al., 2019). More research is needed to fully assess their overall impact, value, and adoption in real-world scenarios. Some TDIs have potential to be easily accessible, cost-effective, and appealing to students who otherwise might not seek formal help while the technology required for others may be costly to maintain and pose barriers to access (Conley et al., 2016; Dunbar, Sontag-Padilla, Kase, Seelam, & Stein, 2018; Lattie et al., 2019; Ryan, Shochet, & Stallman, 2010).

The COVID-19 pandemic led to a dramatic increase in the use of TDIs, particularly the delivery of counseling sessions via videoconference technology (AUCCCD Directors Survey, 2020). Firm estimates of a parallel increase in use of other TDIs have not yet been published (e.g., self-guided therapy, mental health apps), but anecdotally it is obvious that colleges are increasing those offerings as well. Research to understand which TDIs are effective and how to engage students with those interventions will be enormously valuable in this new era.

An overall strength of individual-level interventions in higher education is their effectiveness in a limited amount of time. Across reviews of universal and indicated programs targeting social-emotional skills, help-seeking, and mental health symptoms, interventions are noted as being brief. The median duration of universal mental health prevention programs in higher education is just 10 hours (range: 1-46 hours) (Conley et al., 2015). The success of higher education mindfulness programs in strengthening social-emotional skills is celebrated as "impressive given their brevity" (Conley, 2015, p. 204). These programs are longer, on average, than other prevention programs in higher education (30 hours of intervention time over 3-10 weeks) but short compared to the multi-year programs for effectively addressing social-emotional skills in preschool and elementary students (CASEL, 2012). Furthermore, length is not a strong predictor of intervention success in higher education. Duration (number of hours) does not predict the effectiveness of TDIs (Conley et al., 2016), and brief indicated face-to-face interventions are as effective as longer ones (Conley et al., 2017). For instance, multi-session eating disorder programs (implemented in and outside of higher education) only produce

significantly stronger intervention effects than single-session programs for one of six outcomes (Stice et al., 2007).

Future Research

In summary, there is limited evidence of effective programs to sustainably reduce stigma, reduce stigma-related discrimination, and increase help-seeking but strong evidence for effective universal and indicated mental health prevention programs in higher education in terms of enhancing social-emotional skills and reducing mental health symptoms and distress. Research is needed to identify the active ingredients of interventions, the range of outcomes that can be expected for different student groups in the immediate and longer term, and how best to integrate preventive services at more institutions of higher learning so a greater number of students can benefit (Conley et al., 2015, 2017; Hom et al., 2015; Mann, Haas, Mehlum, & Phillips, 2005; Sagar-Ouriaghli et al., 2019; Weisz, Sandler, Durlak, & Anton, 2005). Some existing distillation research provides a starting point for identifying intervention active ingredients (see ***Table 2.1***).

Intervention studies would be strengthened through more objective and diverse outcome measures assessed over the long term (Christensen, Pallister, Smale, Hickie, & Calear, 2010; Conley et al., 2015, 2016, 2017; Friedrich & Schlarb, 2018; Thornicroft et al., 2016; Winzer et al., 2018). Help-seeking, coping behaviors, sleep, mental health, and academic outcomes could and should be measured more objectively (Conley et al., 2015; Friedrich & Schlarb, 2018; Hom et al., 2015). Researchers have identified mismatches between outcomes targeted by and impacted through interventions, as well as broad potential outcomes from similar intervention techniques (Conley, 2015; Conley et al., 2017; Rith-Najarian et al., 2019). Widening the set of outcomes objectively measured (e.g., social and emotional skills, interpersonal relationships, physical health, academic performance, retention, substance use) will not only help to identify the interventions most effective for addressing the full range of desired outcomes in higher education (health *and* academic) but also enable calculating the cost-effectiveness of such programs (Conley et al., 2015; Thornicroft et al., 2016; Weisz et al., 2005). Furthermore, lack of follow-up and evidence of intervention durability limits current stigma, help-seeking, and universal and indicated prevention programs (Conley et al., 2015, 2016, 2017; Xu et al., 2018; Yamaguchi et al., 2013) and should be addressed. For example, Conley and colleagues (2015) found that just 30 of 103 reviewed universal prevention programs assessed outcomes at any follow-up; longer follow-up periods were associated with poorer outcomes. This suggests

attention should be paid to whether intervention effects wear off over time or if learned skills need practice and reminders to be maintained.

Table 2.1 *Common Intervention Ingredients of Evidence-Based Programs*

Intervention Type	Active Ingredients in Effective Evidence-Based Programs	Source
Adolescent Health Promotion	Problem solving, communication skills, & insight building	(Boustani et al., 2015; Chorpita & Daleiden, 2009; Chorpita, Daleiden, & Weisz, 2005)
Children Mental Health Service Engagement	Assessment & accessibility promotion	(Becker, Boustani, Gellatly, & Chorpita, 2018; Lindsey et al., 2014)
Prevention Programs for reducing depression, anxiety and/or stress in university students	Physiologically oriented skills (e.g., relaxation, physical exercise, biofeedback) & cognitive monitoring/restructuring	(Rith-Najarian et al., 2019)
Enhancing men's mental health help-seeking	Role models to convey information, psychoeducational material to improve mental health knowledge, assistance with recognizing & managing symptoms, active problem-solving tasks, motivating behavior change, signposting services, & content built on positive male traits (e.g., responsibility and strength)	(Sagar-Ouriaghli et al., 2019)

Across all types of individual-level mental health interventions in higher education, there is a need to better understand for whom the interventions work and to identify effective interventions for the full range of students and contexts in higher education. Multiple reviews identify mostly female samples in studies of higher education mental health programs (Conley et al., 2015, 2016; Davies et al., 2014; Farrer et al., 2013; Regehr et al., 2013; Rith-Najarian et al., 2019; Yamaguchi et al., 2013). The gender imbalance in reviewed studies is more extreme than the disproportionate rate of mental health symptoms observed among women compared to men (i.e., there is unmet need among men) (Lipson et al., 2016; Pedrelli, Borsari, Lipson, Heinze, & Eisenberg, 2016). The binary treatment of male/female in reviews and evaluations also neglects transgender and gender diverse college students who face a disproportionate burden of mental health concerns (Lipson, Raifman, et al., 2019). While there is evidence that some higher education interventions are equally effective across genders (Conley et al., 2017), other research suggests that gender may moderate intervention acceptability and effectiveness, especially for stigma, help-seeking, and suicide prevention programs (Conley et al., 2016; Gronholm, Nye, & Michelson, 2018; Klimes-Dougan, Klingbeil, & Meller, 2013; Rith-Najarian et al., 2019; Sagar-

Ouriaghli et al., 2019; Thornicroft, 2006; Yamaguchi et al., 2013). For example, a review of universal suicide prevention programs in high schools identified potential harmful effects in males (Klimes-Dougan et al., 2013).

In addition to examining how gender moderates intervention acceptability and effectiveness, research is needed to understand the influence of other student characteristics. Far too many intervention studies in higher education do not report student characteristics (e.g., race, sexuality, first-generation status, primary language, citizenship, disability status) or conduct subgroup analyses (Conley et al., 2015, 2016, 2017; Yamaguchi et al., 2013). Conley and colleagues (2015, 2017) found that less than one-third of universal and indicated prevention intervention studies reported on student race or ethnicity. Encouragingly, among those that did, having a greater number of ethnic minority participants was associated with larger intervention effect sizes (Conley et al., 2015), which has not been found consistently in prevention research (Weisz et al., 2005). In addition, 35 percent of students in face-to-face indicated prevention studies were non-Caucasian, which is relatively close to the demographics in the U.S. higher education system (Conley et al., 2017; NCES, 2019).

Initial research suggests other moderators of intervention effectiveness, such as students' year in school and degree program, should be explored further. For example, Yamaguchi and colleagues (2013) found stigma interventions with medical students were uniquely ineffective, raising the importance of specifically testing intervention effectiveness for students in helping professions (Yamaguchi et al., 2013). Other researchers have compared the effectiveness of mental health and stress reduction programs with undergraduates and graduates (Conley et al., 2015; Yusufov, Nicoloro-Santabarbara, Grey, Moyer, & Lobel, 2018). Conley and colleagues (2015) found universal prevention interventions conducted with graduate and professional students appear to have the largest effects (ES=0.53), while those targeting first-year undergraduates are least successful (ES=0.11). Full reporting on student characteristics should be routine and researchers should compare benefits across groups whenever possible.

Further research is also needed to understand the impact of who delivers individual-level mental health interventions. There is some evidence that program quality is closely tied to the training and preparedness of the individuals delivering it (Meiklejohn et al., 2012; Schwartz & Davar, 2018). But in their review of face-to-face indicated interventions, Conley and colleagues (2017) found almost two-thirds of programs were facilitated by paraprofessionals (including

university staff, graduate trainees, or peers) and that these programs were as effective as those delivered by fully trained mental health staff. On the other hand, eating disorder prevention programs led by trained interventionists are often more effective than those delivered by staff and faculty (Stice et al., 2007). Wellness coaching is currently being delivered by health promotion staff and trained students; research is needed to evaluate whether both are effective (ACHA, 2020).

More research is also needed across settings in higher education. Community college students, for example, are grossly underrepresented in studies (Conley, 2015), despite the fact that they comprise 34% of the college population (NCES, 2019) and have greater needs but more limited access to mental health supports (Eisenberg, Goldrick-Rab, Ketchen Lipson, & Broton, 2016; Katz & Davison, 2014; Lipson, Phillips, Winquist, Eisenberg, & Lattie, 2021). Researchers should also evaluate other campus characteristics that may shape intervention effectiveness, such as the racial composition of faculty, staff, and students and the degree to which the campus is residential.

Another important area for future research is identifying keys to successful adoption, implementation, scaling, and sustainment of individual-level mental health interventions in higher education. Most research to date has focused on outcome efficacy (Cimini & Rivero, 2018; Conley et al., 2015; Lattie et al., 2019). Several reviews of individual-level mental health interventions note huge inconsistencies in how student adherence is reported and measured (Conley et al., 2015, 2016; Rith-Najarian et al., 2019) and little attention to participant satisfaction (Conley et al., 2017). Better understanding satisfaction, adherence, and achieved implementation is important for interpreting studies of effectiveness (Conley et al., 2016). Further study of fidelity, dosage, adaptation, and quality is also warranted (Conley et al., 2017). For example, Rash (2008) explored the challenges of implementing MI interventions in the college setting and noted that many evaluations do not describe treatment manuals or provider intervention-delivery fidelity, leading to weak internal validity. Overall, greater understanding of the factors contributing to long-term successful intervention adoption and implementation in higher education is needed (Cimini & Rivero, 2018; Conley et al., 2017; Lattie et al., 2019).

Interpersonal Interventions

Colleges actively employ many approaches that shape students' interpersonal interactions, relationships, support, and skills (Kirsch et al., 2014). However, these are seldom

evaluated for their impact on student mental health. In this section, we review the evidence regarding efforts to shape peer, family, and instructor relationships, as well as student social skills and sense of belonging, to enhance student mental health. I defer discussion of gatekeeper training programs to the community intervention section that follows, since such programs are typically implemented community wide with the aim of changing the culture of college communities.

Peer Interventions

Peers impact student wellbeing in numerous ways, with well-documented effects on behavior, health, and academic outcomes (Astin, 1993; Kirsch et al., 2014; Kuh et al., 1991; Mayhew et al., 2016; Renn & Arnold, 2003; Tinto, 1993). Peers may be "the single most potent source of influence" on student affective and cognitive growth and development during college (Astin, 1993, 398; Kuh, 1993; Whitt, Edison, Pascarella, Nora, & Terenzini, 1999). They have been the focus of interventions aiming to enhance knowledge sharing, referral, peer counseling, and social support.

Peer Health Education. Most colleges have a peer health education program (Salovey & D'andrea, 1984; Wawrzynski, Loconte, & Straker, 2011), which is commonly seen as a cost-effective strategy for health promotion despite rarely being evaluated (Dubovi & Sawyer, 2018; Fennell, 1993; Shook & Keup, 2012; Wawrzynski & Lemon, 2021; Wawrzynski et al., 2011; White, Park, Israel, & Cordero, 2009). Nationally, peer educators increasingly receive mental health training and prioritize this topic in outreach (Wawrzynski & Lemon, 2021). Such training focuses on general mental health promotion more than suicide prevention, self-harm, or eating disorders (Wawrzynski & Lemon, 2021). In addition to sharing health information, peer educators also mentor, model healthy behaviors, promote positive decision-making, provide referrals, and offer personalized feedback to assist students in meeting health-related goals (Catanzarite & Robinson, 2013; Dubovi & Sawyer, 2018; Ebreo, Feist-Price, Siewe, & Zimmerman, 2002; Swarbrick, Murphy, Zechner, Spagnolo, & Gill, 2011; Wawrzynski & Lemon, 2019; White et al., 2009). This is thought to be uniquely effective coming from peers, resulting in positive peer pressure and attractive, approachable programming (Dubovi & Sawyer, 2018). Despite four decades of concern about the evidence base for peer health education (Fennell, 1993; Milburn, 1995; Salovey & D'andrea, 1984), it is growing slowly. There is evidence to suggest value in positively influencing substance use behaviors (White et al., 2009),

but less work has directly examined mental health benefits (Dubovi & Sawyer, 2019). Perhaps most promising is a large longitudinal study of students across 12 California colleges that found that increased familiarity and involvement with the peer organization Active Minds over the course of one academic year were associated with (a) increases in mental health perceived knowledge, (b) decreases in stigma, and (c) increases in helping behaviors (providing or enhancing access to emotional support and helping peers get professional help) (Sontag-Padilla et al., 2018). Active Minds uses a combination of peer education, support, modeling, and skill-training to shape student outcomes, but the research corroborates the benefits of having peers working actively to raise mental health awareness at colleges. Growing familiarity with Active Minds, even without involvement, was associated with reduced stigma and enhanced knowledge (Sontag-Padilla et al., 2018). Peer mental health organizations may have impact beyond directly involved students, perhaps by improving general student body views of mental health. This may be critical in increasing help-seeking (Sontag-Padilla et al., 2016, 2018).

Other evidence suggests that training enhances peer educators' health-promoting knowledge, attitudes, and behaviors (Badura, Millard, Peluso, & Ortman, 2000; Dubovi & Sawyer, 2018; Heys & Wawrzynski, 2013; Newton, Ender, & Gardner, 2010; Sawyer, Pinciaro, & Bedwell, 1997; Wawrzynski & Lemon, 2021; Wawrzynski et al., 2011). Unfortunately, most evaluations of trainings' effects on peer educators are not methodologically rigorous, lacking otherwise similar comparison groups and longer-term outcomes, thereby making definitive conclusions about efficacy elusive (Dubovi & Sawyer, 2018; Wawrzynski & Lemon, 2021). However, the growing evidence on peer education overall suggests some promise through these approaches, and student-run programs like Active Minds are not costly to institutions.

Peer Support Interventions. There is more research focused on an array of peer support programs. Across settings, significant research has demonstrated that peer counseling and group interventions are effective in improving a wide range of health outcomes among diverse populations (Davidson, Bellamy, Guy, & Miller, 2012; Ramchand et al., 2017; Webel, Okonsky, Trompeta, & Holzerner, 2010). There is a significant history of using peers to prevent the onset, reduce severity, or manage consequences of disease (Davidson et al., 2012; Ramchand et al., 2017), with perhaps particular importance for individuals with mental health conditions (Fuhr et al., 2014; Gidugu et al., 2015; Kirsch et al., 2014; SAMHSA, 2012). A review of trials evaluating use of paid peer supporters in non-college mental health settings found that peer-

delivered services were as good as those provided by staff, with perhaps greater enhancement of hope, empowerment, and quality of life (Bellamy, Schmutte, & Davidson, 2017). There is some evidence that peer counseling enhances social functioning, coping, and engagement with care (Chinman et al., 2014; Landers & Zhou, 2011). However, other research has found little or no evidence of positive effects on hospitalization, overall symptoms, or satisfaction with services (Lloyd-Evans et al., 2014). Inconsistent findings regarding the impact of peer counseling may be due to variation in intervention content, peer counselor training, trial populations, and study methodology (Lloyd-Evans et al., 2014). More clearly defined models of peer support and fidelity criteria for such interventions, along with more rigorous evaluations, will help shed light on the effect of such programs.

Mental health peer support programs at colleges vary in delivery methods, aims, training elements, and institutional "homes" (Caporale-Berkowitz, 2020; John et al., 2018; Kirsch et al., 2014). Some schools offer one-on-one counseling through training of selected students to provide unidirectional support to peer participants in-person or over the phone (Caporale-Berkowitz, 2020). Training length and form varies by institution but typically covers topics such as depression, anxiety, disordered eating, grief, substance use, and academic issues. Peer counselors are then available as a complement to counseling center services, via drop-in or appointment (Johnson & Riley, 2021). Some programs are closely affiliated with school counseling centers and marketed as such, while others are promoted as student-driven to increase perceived accessibility (Caporale-Berkowitz, 2020). Some take the form of peer coaching, with one-on-one assignments for an entire semester to improve academic and general performance (Caporale-Berkowitz, 2020). Despite the popularity of one-on-one peer support programs, evaluative research remains sparse. However, there are some promising findings. For example, comparison of matched universities in the United Kingdom with and without a peer program (which matched first-year students with upper-level mentors) showed that mentoring was associated with declines in negative affect and increases in social support over the first 10 weeks of the school year (Collings, Swanson, & Watkins, 2014).

As with peer educators, there is more evidence for beneficial impact on those trained to provide peer support (Bernecker, Williams, Caporale-berkowitz, Wasil, & Constantino, 2020; Hatcher, Shields, Wierba, Hatcher-Ross, & Hanley, 2014; Johnson & Riley, 2021). For example, after 6 weeks of work, students trained to provide mental health support through a student-run

mental health chat line showed less avoidance coping and greater sense of belonging to a community relative to untrained workers (Johnson & Riley, 2021). There were no differential changes in flourishing. The causal agent here is unclear, but the study does show that, on balance, being a peer supporter enhances rather than taxes the wellbeing of those who help others (Johnson & Riley, 2021). An RCT demonstrated that an online course to teach psychotherapy skills to nonprofessionals, including college students, decreased advice giving and increased open-ended questions, time spent listening, and helpfulness (Bernecker et al., 2020). Scalable online training with one-on-one practice among peers may provide an avenue for disseminating peer support skills on campus (Caporale-Berkowitz, 2020).

Group peer interventions are more commonly used and studied. They are led by peers or professionals and are both clinical and nonclinical in nature. Non-clinical examples include identity-based support groups that are not focused directly on mental health (e.g., LGBTQ support), preventive group interventions with peer leaders to support the transition to college, and peer-led support groups focused on identity, wellbeing, and day-to-day life. There are also traditional clinical support groups led by mental health professionals. High-quality studies of these programs in higher education remain limited (Caporale-Berkowitz, 2020; John et al., 2018), but some research has been conducted. Mostly qualitative research has identified ethnic, LGBTQ+, and minority-based student organizations as beneficial to student self-esteem, identity, integration, social support, belonging, and academic achievement (Baker, 2008; Conchas, 2001; Crisp, Taggart, & Nora, 2015; Fries-Britt, 1998; Guiffrida, 2003; Harper & Quaye, 2007; Museus, 2008; Nagasawa & Wong, 1999; Pitcher, Camacho, Renn, & Woodford, 2018). Mental health benefits of such peer groups have not been examined at the collegiate level but have been identified by quantitative research in secondary schools. For example, Gender and Sexualities Alliances (formerly: Gay Straight Alliances) are associated with less substance abuse, depression, and psychological distress, and fewer suicide attempts (Davis, Stafford, & Pullig, 2014; Goodenow, Szalacha, & Westheimer, 2006; Heck, Flentje, & Cochran, 2013; Poteat, Sinclair, Digiovanni, Koenig, & Russell, 2012).

One 9-week peer-led prevention group, focusing on transition to college and social support, has demonstrated metal health and academic benefits through rigorous evaluation (Lamothe et al., 1995; Mattanah et al., 2010; Mattanah, Brooks, Brand, Quimby, & Ayers, 2012; Pratt et al., 2000). An RCT showed that positive impacts on loneliness and grade point average

(GPA), which were unrelated to each other, did not vary by gender, race, or residential status (living on campus or commuting) (Mattanah et al., 2012). Another unusually well-evaluated group peer intervention for college students is the *Body Project*, a dissonance-based eating disorder prevention program for young women at risk for eating disorders due to body dissatisfaction (Stice, Shaw, Burton, & Wade, 2006). Also evaluated with RCTs, the intervention was efficacious in reducing risk factors, eating disorder symptoms, functional impairment, and future eating disorder onset over a 3-year follow-up (Becker, Smith, & Ciao, 2005; Becker et al., 2008; Halliwell & Diedrichs, 2014; Matusek, Wendt, & Wiseman, 2004; Mitchell, Mazzeo, Rausch, & Cooke, 2007; Stice, Marti, Spoor, Presnell, & Shaw, 2008; Stice et al., 2006). Similar effects were seen in a more ecologically valid context (existing college counselors recruited participants and delivered the intervention to at-risk young women), with long-term eating disorder symptom reductions (Stice, Butryn, Rohde, Shaw, & Marti, 2013; Stice, Rohde, Shaw, & Gau, 2011). Benefits were experienced by African American, Asian American, European American, and Hispanic female college students, regardless of participant-facilitator ethnic minority status match (Stice, Marti, & Cheng, 2014). In recognition of its unusually high level of evidence, the *Body Project* is listed as a Model Program in the Blueprints Programs for Healthy Youth Development (www.blueprintsprograms.org).

The Support Network is a peer-led support group model that has been adopted by several schools, but it has yet to be formally evaluated (Caporale-Berkowitz, 2020). Trained, peer facilitators lead weekly groups of six to ten students. Groups remain intact throughout the semester and foster discussion about college life and emotional wellbeing. They aim to establish meaningful relationships that persist beyond the group and enhance wellbeing by allowing students to both provide and receive support (Hogan, Linden, & Najarian, 2002). Their impact has not yet been rigorously assessed, but scalability has been demonstrated by the number of school adopters and students reached at participating institutions (e.g., 600 per semester at one large university). Program evaluation is urgently needed to ensure the students currently being served are benefitting from and not being harmed by participation. Online peer support interventions may also hold promise, particularly for student populations that are less likely to utilize mental health treatment (Watkins & Jefferson, 2013). For example, an online, social media-based intervention addressing mental health, manhood, and sustainable social support

with Black college men and their peers reduced depressive symptoms among participants in a mixed methods pre-to-post study (Watkins et al., 2020).

Evidence from clinical contexts outside of higher education provides strong support for the efficacy of peer-led support groups. There has been enough work to support two meta-analyses in depression, where peer-run support groups significantly reduce depressive symptoms, performing as well as professional-led interventions and significantly better than no-treatment conditions (Bryan & Arkowitz, 2015; Byrom & Byrom, 2018; Pfeiffer et al., 2012). Peer-led support groups enhance positive outlooks, empowerment, hope, and self-efficacy more than traditional services alone (Repper & Carter, 2011). In an RCT, patients working with them felt more liked, accepted, and understood than patients enrolled in traditional care (Sells, Davidson, Jewell, Falzer, & Rowe, 2006) and showed reduced depression relative to patients in typical group therapy (Pfeiffer, Heisler, Piette, Rogers, & Valenstein, 2011).

In conclusion, peer interventions appear to be a low-cost strategy with potential to contribute positively to college mental health efforts, benefitting peer leaders and participants alike. Further research is needed to fully investigate the benefits of the diverse ways to involve college peers in mental health promotion and intervention.

Family Interventions

Families also impact psychosocial adjustment and remain an important source of social support in college (Drum, Brownson, Denmark, & Smith, 2009; Hope & Smith-Adcock, 2015; Mattanah, Lopez, & Govern, 2015), though more work is needed to understand parental involvement and influence on college students (Harper, Sax, & Wolf, 2012; Kiyama & Harper, 2018; Wartman & Savage, 2008; Wolf, Sax, & Harper, 2011). College parent programs have existed since the 1920s, and over 90% of schools offer some sort of family programming (Self, 2013; Wartman & Savage, 2008), but this is often just a session during orientation, a newsletter, or a website (Coburn & Woodward, 2001; Harper, Kiyama, Ramos, & Aguayo, 2019). Families are generally seen as outside the purview of colleges (Kiyama & Harper, 2018). I was unable to find higher education interventions focused on families that were evaluated for impact on student mental health; this remains an unexplored arena. Evidence outside of higher education suggests that it is worth investigating. For example, in suicidal adolescents, family-based intervention RCTs have consistently shown a reduction in suicidal ideation and suicide risk factors, an increase in protective factors, and a reduction in psychiatric hospitalizations and suicide attempts

(Diamond et al., 2010; Hooven, Walsh, Pike, & Herting, 2012; Pineda & Dadds, 2013; Wharff, Ginnis, & Ross, 2012).

Higher education news and literature often describes parents in negative terms, characterizing them as hovering (Carney-Hall, 2008; Pizzolato & Hicklen, 2011; Self, 2013; Taub, 2008; Wartman & Savage, 2008). However, positive forms of parental involvement are acknowledged, including support and advocacy for mental health issues (Carney-Hall, 2008; Morris, 2021). This issue may take on a new complexion now, as prior stereotypes about parental involvement were shaped by reactions to privileged classes, but inclusive engagement of diverse families may carry particular benefits (Kiyama & Harper, 2018). In fact, growing evidence documents the importance of family support to first-generation and SOC (Crockett et al., 2007; Makomenaw, 2014; Nuñez & Kim, 2012; Strayhorn, 2010; Torres & Solberg, 2001; Torres, Jones, & Renn, 2009). To support students coming from increasingly diverse backgrounds, family-focused programs should be as inclusive as possible. This includes providing services—such as those addressing housing, childcare, and working while in school needs—for the growing number of students supporting families (as parents, caregivers, or children), especially at community colleges (Ascend, 2020; Makomenaw, 2014; Nelson, Froehner, & Gault, 2013). Since many students, especially those of color, are not being served by the campus mental health system (Lipson et al., 2018), family interventions might be a key avenue for increasing support systems and help-seeking. Program development and evaluation is urgently needed.

Faculty and Staff Interventions

Non-parental adults, such as faculty and staff who serve as advisors or mentors, are a promising, yet understudied source of social and mental health support for college students (Le, Hsu, & Raposa, 2021). They serve as role models and sources of information, advice, practical help, and emotional support (Zimmerman, Bingenheimer, & Behrendt, 2005). Students themselves focus on teachers and teaching practices when asked what can be done to support student wellbeing, emphasizing the importance of approachability, empathy, and communication skills (Baik, Larcombe, & Brooker, 2019). Correlational studies and reviews of school prevention programs highlight the importance of both protective, positive interactions and the opportunity for teachers to reduce stressors in the learning environment (Baik et al., 2019; Bowman, 2010c; Wells, Barlow, & Stewart-Brown, 2003; Wyn, Cahill, Holdsworth, Rowling, & Carson, 2000).

Recent evidence emphasizes the role of mentoring in improving student mental health (Le et al., 2021), by supporting broader exposure to nurturing relationships, career options, and various social identities (Hagler, 2018). Being able to name a natural[2] mentor is linked to reduced psychological distress, less risk-taking, and better academic and vocational outcomes during the transition to adulthood (Hurd & Zimmerman, 2010; Zimmerman et al., 2005). As with family interventions, the impact may be greatest on marginalized groups. College students from traditionally underrepresented backgrounds who retained a greater number of natural mentors through their first year of college showed reductions in depressive symptoms across the year (Hurd, Tan, & Loeb, 2016), via enhanced self-worth that reduced psychological distress (Hurd, Albright, Wittrup, Negrete, & Billingsley, 2018). Students who felt more emotionally close to mentors reported less depression and worry at follow-up than students less connected to their mentors (Le et al., 2021). Mentors are recognized as being particularly important for retention, mental health, and wellbeing among graduate students, and, once again, this is particularly true for students with marginalized identities (Allen et al., 2020; Becerra, Wong, Jenkins, & Pressman, 2020; Charles, Karnaze, & Leslie, 2021; Goldberg, Kuvalanka, & Dickey, 2019; Hazell et al., 2020; Hyun, Quinn, Madon, & Lustig, 2006; Jones-White, Soria, Tower, & Horner, 2020; Posselt, 2021; Ryan, Baik, & Larcombe, 2021; Tuma, Adams, Hultquist, & Dolan, 2021).

The impact of mentoring and advising interventions on academic outcomes has been extensively studied (Bettinger & Baker, 2014; Glennen, 1976; King, 1993). Proactive advising and strong mentoring relationships with faculty can increase social and academic integration and success for SOC on predominantly white campuses (Sedlacek, 1987; Tinto, 1993). Potential impacts on mental health have not been assessed but can be expected based on the known benefits of integration and belonging (see section below). There is a large literature on mentoring programs for younger adolescents, which is beyond the scope of this review, with mixed but somewhat encouraging findings (DuBois, Portillo, Rhodes, Silverthorn, & Valentine, 2011; Dubois, Holloway, Valentine, & Cooper, 2002; McQuillin, Lyons, Clayton, & Anderson, 2020; Raposa et al., 2019; Rhodes, 2008). One comprehensive meta-analysis of 70 outcome studies on intergenerational youth mentoring programs revealed modest effectiveness for promoting numerous positive outcomes, including mental health (Raposa et al., 2019). Given the nonspecific and broad range of mentoring activities (McQuillin et al., 2020), sophisticated

---

[2]Identified by the mentee, not assigned

efficacy and implementation research designs may be needed to identify the specific factors within mentoring that impact particular segments of the student body.

While postsecondary faculty and staff have the potential to enhance student mental health, they may also harm students through microaggressions and discrimination (Goldberg et al., 2019; Knutson, Matsuno, Goldbach, Hashtpari, & Smith, 2021; Nolan, Khan, & Banks, 2018; Smith, Allen, & Danley, 2007; Suárez-Orozco, Casanova, et al., 2015). Microaggressions based on race/ethnicity (Keels et al., 2017; Ogunyemi et al., 2020), gender (Capodilupo et al., 2010; Nadal, Rivera, & Corpus, 2010), sexual orientation (McCabe, Dragowski, & Rubinson, 2013; Nadal et al., 2011; Platt & Lenzen, 2013), immigration status (Nadal, Mazzula, Rivera, & Fujii-Doe, 2014), disability (Keller & Galgay, 2010), religious affiliation (Nadal, Issa, Griffin, Hamit, & Lyons, 2010), social class (Broockman & Kalla, 2016; Jury et al., 2017; Walpole, 2003), documentation status (Suárez-Orozco, Katsiaficas, et al., 2015), and more are prevalent and perpetrated throughout higher education settings (including health and counseling professionals). For example, research documents that TGGD college students are "tokenized, misgendered, outed, and invalidated by faculty members throughout their academic day" (Knutson et al., 2021, p. 7; Matsuno, 2019). Such treatment is associated with negative mental health outcomes, including psychological distress, suicidal ideation, anxiety, and depression (Blume, Lovato, Thyken, & Denny, 2012; Hwang & Goto, 2008; Keels et al., 2017; Nadal, Rivera, et al., 2010; Pieterse et al., 2010; Torres, Driscoll, & Burrow, 2010; Woodford, Kulick, et al., 2014).

Interventions that train existing social network members to enhance their support or decrease perpetration of interpersonal harm have remained a rarely explored model of social support interventions since the 1990s (Lakey & Lutz, 1996). Ally training programs for faculty and staff reflect one strategy to increase support for and decrease harms toward stigmatized groups. They have been implemented in higher education to improve the collegiate experience of student veterans (Olsen, Badger, & MccCuddy, 2014), LGBTQ students (Poynter & Tubbs, 2007), and students in recovery from substance use disorders (Beeson et al., 2019). These programs are recommended (e.g., Beemyn, 2005; Rankin, 2005) and popular but rarely evaluated in the empirical literature (Draughn, Elkins, & Roy, 2002; Poynter & Tubbs, 2007; Woodford, Kolb, Durocher-Radeka, & Javier, 2014). There is some preliminary evidence from secondary schools that training educators may increase intervention in anti-LGBTQ language and behavior

and action to create safe and supportive environments (Greytak & Kosciw, 2010; Greytak, Kosciw, & Boesen, 2013; Johns, Poteat, Horn, & Kosciw, 2019; Payne & Smith, 2010; Szalacha, 2003).

Diversity trainings and racial dialogue workshops are another category of interventions to decrease interpersonal harms. Faculty sensitivity training to reduce racism and microaggressions is a leading demand of campus protesters (Berner, 2015; Byrd, Luney, Marie, & Sanders, 2021; Williams, 2019), but there is strikingly little evidence or agreement regarding effective interventions, desired outcomes, or even essential elements of such training (Ogunyemi et al., 2020; Paluck, 2006; Paluck & Green, 2009; Williams, 2019). Positive (Miller & Donner, 2000; Sue et al., 2019; White-Davis et al., 2018) and detrimental (Sue, Lin, Torino, Capodilupo, & Rivera, 2009; Sue, Rivera, Capodilupo, Lin, & Torino, 2010) effects have been demonstrated for higher education workshops and dialogues meant to combat racist interpersonal interactions. Meta-analyses of diversity trainings implemented in a range of settings suggest that they produce small-to-moderate improvements in attitudes and bias, with stronger effects if the training is mandatory and if dialogue lasts longer or occurs in a series rather than stand-alone (Bezrukova, Spell, Perry, & Jehn, 2016; Kalinoski et al., 2013). Interpersonal interventions to decrease harm perpetrated by faculty and staff receive greater attention in the unpublished literature (e.g., dissertation abstracts, conference proceedings). Investing the necessary resources to conduct and publish robust evaluations is recommended, especially as the demand for and popularity of such training surges in higher education. Further faculty opportunities to reduce stressors harming student mental health and enhance protective factors will be discussed below in the learning environment section of community-level interventions.

Social Skills Training Interventions

Social skills training is another interpersonal intervention that can enhance relationships, social support, and mental health (Ando, 2011; Conley et al., 2015; Hogan et al., 2002; Lakey & Lutz, 1996). These interventions are relatively rare in higher education and have been evaluated with mixed results. They represented 3% of universal mental health prevention interventions reviewed by Conley and colleagues (2015); two out of five were successful. One focused on roommates and enhancing positive communication (Waldo, 1982), and one used a computer-based approach to improving romantic relationships (Braithwaite & Fincham, 2007). Both involved skill development and practice. The evidence suggests value for enhancing social and

emotional competencies in higher education (Braithwaite & Fincham, 2007; Conley et al., 2015). A more recent intervention, evaluated through mixed-methods, focused on developing social skills among first-generation students at an ethnically diverse, public university (Schwartz et al., 2018). It increased participant support-seeking, GPAs, and closeness with instructors (Schwartz et al., 2018). Advocates propose teaching students support skills at orientation, in a way that would help every student begin college connected to a peer group; expressed goals would be community building and leadership and skill development (Caporale-Berkowitz, 2020). A peer-based, "helping each other" approach would have compounding impact, given that helping others promotes happiness, mental health, confidence, and self-esteem (Repper & Carter, 2011), that giving *and* receiving support produces the most benefits (Hogan et al., 2002), and that reciprocal self-disclosure fosters social connections that improve health and academic outcomes (Walton & Cohen, 2011).

Social skills training has documented efficacy when applied to psychiatric populations, with enhanced social functioning for as long as 6 months (Dam-Baggen & Kraaimaat, 1986; Finch & Wallace, 1977; Goldsmith & McFall, 1975; Hersen, Himmelhoch, Thase, & Bellack, 1984; Holmes, Hansen, & Lawrence, 1984; Lakey & Lutz, 1996; Monti & et al, 1979, 1980; Stravynski, Belisle, Marcouiller, Lavallee, & Elie, 1994). It is a critical component of peer support programs (Byrom & Byrom, 2018; Gidugu et al., 2015), and skill-focused efforts produce better outcomes than purely supportive approaches in treating depression in community mental health centers (Bryan & Arkowitz, 2015). Social skills training has been shown to add additional value in the context of social support interventions for a wide range of problems (e.g., cancer, loneliness, weight loss, substance abuse) and across individual and group interventions as well as peer- and professionally directed programs (Hogan et al., 2002).

While social skills training interventions are relatively rare in colleges, numerous existing activities in college life help students gain and practice interpersonal skills—from group work in courses to involvement in student organizations and athletics (Schwartz & Davar, 2018). Some preliminary work suggests that extracurricular and political activity may counter negative psychological health outcomes stemming from underrepresented students' experiences of discrimination (Billingsley & Hurd, 2019; Hope, Velez, Offidani-Bertrand, Keels, & Durkee, 2018). Intergroup Dialogues in higher education are primarily focused on strengthening "capacities to foster social justice commitments" but may foster multicultural interpersonal

skills, which could have benefits for mental health (Frantell, Miles, & Ruwe, 2019; Hopkins & Domingue, 2015). Studies that assess mental health outcomes of existing social skill-developing programming in higher education and examine ways to cost-effectively enhance such impacts are urgently needed.

Belonging Interventions

Student belonging is another area ripe for intervention development and research, with much evidence already accumulated that belongingness enhances human health. Sense of belonging (i.e., the human need to belong to and be accepted within a community) influences a wide range of social, psychological, and academic outcomes for adolescents and young adults (Bensimon, 2007; Hausmann, Ye, Schofield, & Woods, 2009; Osterman, 2000; Pittman & Richmond, 2008; Shochet, Dadds, Ham, & Montague, 2006; Walton & Cohen, 2011). A weak sense of belonging is associated with poor mental and physical health and even suicide (Anderman, 2002; Baumeister & Leary, 1995; Gummadam, Pittman, & Ioffe, 2016; Hagerty, Williams, Coyne, & Early, 1996; Hoyle & Crawford, 1994; Mounts, 2004; Shochet et al., 2006). Strong belongingness predicts flourishing (positive mental health) (Fink, 2014) and shapes positive emotional and behavioral adjustment (Georgiades, Boyle, & Fife, 2013; Hagerty et al., 1996; Pittman & Richmond, 2008). School belonging enhances educational outcomes for adolescents and young adults (Cham, Hughes, West, & Im, 2014; Eccles & Roeser, 2003; Hughes, Hee Im, & Allee, 2015; Hurtado & Ponjuan, 2005; Kember, Lee, & Li, 2001; Tovar, Simon, & Lee, 2009), increasing student engagement, academic motivation and self-efficacy, and academic achievement (Cham et al., 2014; Eccles & Roeser, 2003; Freeman, Anderman, & Jensen, 2007; Ostrove, Stewart, & Curtin, 2011; Roeser, Midgley, & Urdan, 1996; Zumbrunn, McKim, Buhs, & Hawley, 2014). First-year college students (White and African American) with a strong sense of belonging develop enhanced institutional commitment and stronger intentions and success at persistence (Hausmann et al., 2009).

Belonging should be a valuable target for intervention, and there is growing evidence that it is modifiable through intervention in students (Binning et al., 2020; Gilken & Johnson, 2019; Layous et al., 2017; Marksteiner, Janke, & Dickhäuser, 2019; Stephens, Hamedani, & Destin, 2014; Walton, Logel, Peach, Spencer, & Zanna, 2015; Winkelmes et al., 2016). These interventions not only produce health and academic benefits but help reduce inequities, with strong support in a series of rigorous RCT studies (Brady, Cohen, Jarvis, & Walton, 2020;

Walton & Cohen, 2011). Specifically targeting first-year students, a belonging intervention changing attributional processes to decrease belonging uncertainty improved African American students' self-reported health and wellbeing reduced their number of doctor visits 3 years post-intervention (Walton & Cohen, 2011), and 7-11 years later had large positive effects on their general psychological wellbeing (Brady et al., 2020). The intervention eliminated Black-White differences in psychological wellbeing in the treatment group that persisted in the control group (Brady et al., 2020). These benefits were mediated by greater college mentorship, so fostering belonging via brief intervention at the beginning of college enhanced mentorship during college and led to better social and psychological life outcomes post college. The same intervention also worked in Germany, with impact on depressive symptoms (Marksteiner et al., 2019). An RCT of a similar intervention, using real-life stories from senior students to help incoming students understand how social class backgrounds shaped college experiences and strategies for success, documented reduced stress and anxiety, improved adjustment to college life, and enhanced academic and social engagement (Stephens et al., 2014). The intervention eliminated achievement gaps for first-generation students by enhancing their resource utilization (e.g., meeting with professors) and improving end-of-year grades (Stephens et al., 2014).

Given the consistent association between belonging and academic and mental health outcomes, as well as evidence (produced through robust RCTs) that even brief interventions can produce sustained psychological benefits, researchers should examine the feasibility of scaling such interventions as well as continue to assess psychological outcomes using validated measures as they investigate academic benefits of such programs. Existing brief interventions are likely only the forerunners of what is possible for belonging interventions (Murdock-Perriera, Boucher, Carter, & Murphy, 2019). For example, Jedi Public Health, drawing on Purdie-Vaughn's important work on identity safety (Purdie-Vaughns, Steele, Davies, Ditlmann, & Crosby, 2008) and Steele's important work on stereotype threat (Steele, 2010) highlights the promise of comprehensive efforts to "remove and replace discrediting cues in everyday settings" for disrupting the "repeated physiological stress process activation that fuels population health inequities" (Geronimus et al., 2016, p. 105). The model's developers identify specific opportunities to adjust "subtle and pervasive features of the social, psychological, and physical surround" in schools to create identity-safe, mental health-enhancing environments (Geronimus et al., 2016, p. 106).

Opportunities to Reach Underserved Populations

Interpersonal interventions may play a unique role in addressing mental health inequities at institutions of higher education and reaching marginalized and underserved students (Dubovi & Sawyer, 2018). Many aspects of interpersonal interventions may lead them to be effective with underserved populations: they allow for more time and informal interactions than clinical relationships; they can occur outside of institutions that have historically been tainted by racism, heterosexism, and cissexism (e.g., medical systems); and similarities between supporters and the supported individuals can foster mutual respect, cultural competency, and support tailored to identity and context (Fisher et al., 2014; Nicolazzo, Pitcher, Renn, & Woodford, 2017; Rosenthal et al., 2010; Sokol & Fisher, 2016). Given the role of stigma in perpetrating inequities in mental health services receipt, interpersonal interventions can play an important role in normalizing help-seeking among diverse students and their social circles (Dubovi & Sawyer, 2018).

Across a wide range of populations and health concerns, peer support and mentorship have been identified as a "robust strategy for reaching groups that health services too often fail to engage" and improving outcomes for those facing minority stressors; it may, in fact, may be most effective among these populations (Graham & McClain, 2019; Nicolazzo et al., 2017; Sokol & Fisher, 2016, p. e1). As colleges become increasingly diverse with regard to gender, race, ethnicity, generational status, ability status, and sexual orientation (U.S. Department of Education, 2012), peer-led programs may provide an avenue for developing and delivering culturally sensitive and responsive mental health prevention and intervention (Dubovi & Sawyer, 2018; Heys & Wawrzynski, 2013). If peer educators and leaders are recruited in such a way that they are representative of the student body, they may be more likely to be perceived as culturally inclusive than campus staff or professionals (Dubovi & Sawyer, 2018). A diverse group, alone, of course is insufficient for addressing power and privilege, multiculturalism, and stigma, but research should investigate whether mental health interventions delivered by peers representing the student body and trained in multicultural competence enhances the effectiveness, impact, and reach of such programs (Dubovi & Sawyer, 2018). In one study from the 1980s, a counseling program training ethnic minority students to be support agents and referral resources was not successful beyond promoting professional development among the student leaders (Stokes et al., 1988). Another program training multicultural peer advisors (through two sequential three credit courses) at a diverse commuter college provides a model of peer training focused both on

counseling techniques and multicultural sensitivity but was not evaluated (Frisz, 1999). Further research is needed to confirm the promise of interpersonal programs for promoting mental health and preventing and treating mental illness among diverse and historically marginalized student groups on campus (Dubovi & Sawyer, 2018).

Overall, there is robust evidence that interpersonal strategies can be highly effective— particularly peer-based and belonging interventions—in enhancing student mental health, but little evidence exists regarding which specific programs or interventions are most effective in college populations. There is a particular dearth of interventions developed and tested for decreasing interpersonal harm. A challenge for future interpersonal intervention development is that relevant literature is widely dispersed and uses varied terminology for describing similar constructs. Developing shared understanding and terms for interpersonal intervention types and constructs may help to advance research.

Community-Level Interventions

I conceptualize community-level interventions as those created to influence how college community members perceive mental health and respond to students in distress. These interventions are intended to reach a substantial portion of the school community and change norms. Different from institutional interventions, which focus on factors within institutions' control (e.g., policies, building design, budgets), community-level interventions aim to shift community members' behavior across campus to improve the school's culture and students' mental health. In this section, I review evidence related to mental health gatekeeper trainings (GKTs), screening interventions, school-wide programs combining these approaches, crisis-response interventions, and interventions designed to alter the curriculum and learning environment.

Gatekeeper Trainings

GKTs are universal, primary prevention programs that seek to (a) increase knowledge about mental health disorders along with gatekeepers' abilities to intervene, thereby (b) promoting help-seeking among the target population (Lipson, 2014). GKTs are typically brief; the most well-known programs run from 1 to 3 hours. Students (particularly resident advisors [RAs]), faculty, staff, and coaches are trained as gatekeepers in higher education.[3] GTKs are

---

[3]GKTs are similar in many ways to bystander interventions, a term applied in prevention efforts involving mental health and sexual assault, substance abuse, discrimination, and other contexts. Bystander interventions focus on

52

meant to change community norms and behaviors around recognizing and responding to signs of mental health distress. However, they have mostly only been assessed for outcomes at the individual-level (Lipson, 2014; Wolitzky-Taylor, LeBeau, Perez, Gong-Guy, & Fong, 2020). In college settings and elsewhere, evidence of GKTs' positive outcomes in target populations remains thin; training-related effects on help-seeking behavior and mental health in general student communities are largely unknown (Wolitzky-Taylor et al., 2020). A comprehensive review of GKT research published through 2013 revealed no studies in the college context that had evaluated GTKs' impacts within the general student population (Lipson, 2014). Research is urgently needed to evaluate these programs for community-level impacts.

Individual-level GTK outcomes have largely been assessed for trained gatekeepers only (Lipson, 2014; Wolitzky-Taylor et al., 2020). Specifically, campus-based GKT research often involves pre-post surveys measuring trainees' self-perceived and objective knowledge, attitudes, self-efficacy, and intervention skills, intentions, and behaviors (Lipson, 2014). Many GKT studies have identified intervention effects on trainees' self-perceived and objective knowledge (Lipson, 2014). Most research on trainee attitudes (e.g., levels of stigma) has documented improvements from baseline to initial follow-up (Lipson, 2014; Shannonhouse, Lin, Shaw, & Wanna, 2017). Likewise, studies on self-efficacy (e.g., one's perceived ability to persuade someone to get help) suggest that GKT has a significant positive effect for trainees from pretest to posttest. For example, in a cohort study of campus community members trained as gatekeepers (students, staff, and faculty), researchers found that the GTK program Question Persuade Refer (QPR) enhanced trainees' self-perceived ability to connect at-risk students with mental health services (Mitchell, Kader, Darrow, Haggerty, & Keating, 2013). Coleman and colleagues (2019) examined the GKT program Kognito and discovered that undergraduate students trained as gatekeepers scored 84% higher on measures of gatekeeper self-efficacy (e.g., aware of suicide warning signs) than students in the control condition.

Gatekeeper skills (expertise in GKT objectives as assessed by a person other than the trainee) are another, but less commonly evaluated, individual-level outcome of GKT. A cohort study of university employees (faculty, staff, and coaches) and undergraduate RAs showed that

---

recognizing a potentially harmful situation or interaction and training individuals to respond in a way that could positively influence the outcome. The book chapter "The Role of Active Bystander Training Within a Comprehensive Prevention Framework" provides an overview of bystander interventions in college settings (Jacobsen, 2018).

QPR improved gatekeeper skills: merely 10% of participants met criteria for acceptable skills at baseline, whereas 54% met criteria post-GKT (Cross, Matthieu, Lezine, & Knox, 2010). Notably, however, these effects were measured immediately after training and likely represent the "best case scenario" (Cross et al., 2010, p. 156). Furthermore, although suicide-specific intervention skills (i.e., QPR) increased significantly, no changes were observed in general skills (e.g., active listening) (Cross et al., 2010). Another program, the Student Support Network—a 6-week training—was also found to improve students' crisis-response skills (Morse & Schulze, 2013). In one pre-to-post study, graduate students trained to offer GKTs showed improvement in crisis communication skills (Morris et al., 2015).

Similarly little research has considered another individual-level outcome: trainee behavioral intentions (i.e., likelihood of intervening) or actions (i.e., actually intervening or making a referral to professional mental health care). An example of a behavioral intention measure is "How likely is it that you would talk with someone you know about their feelings if you thought they needed help?" (Pearce, Rickwood, & Beaton, 2003, p. 5). From baseline to initial follow-up, GKT has been shown to increase behavioral intentions in three of four studies measuring this outcome (Indelicato, Mirsu-Paun, & Griffin, 2007; Pearce et al., 2003; Tompkins & Witt, 2009). Yet such improvement did not translate to behavior, exemplifying the disconnect between intentions and behaviors. GKT also had no effect on trainees' actual behaviors (intervening or referring to care) in three campus-based studies of this outcome (Indelicato et al., 2007; McLean & Swanbrow Becker, 2018; Tompkins & Witt, 2009). Empirical evidence indicates that GKTs can positively influence trainees' knowledge, attitudes, self-efficacy, and intentions but not skills or actual behaviors. Further, most GKT studies have measured effects related to trainees' self-reported outcomes without assessing actual helping behavior or, more importantly, population-level service utilization and wellbeing.

One college GKT study appears to have considered community-level intervention effects within the target population. Lipson et al. (2014) assessed the effectiveness of Mental Health First Aid (MHFA) delivered to RAs on 32 college campuses through an RCT. Residence halls were assigned to the intervention (MHFA plus preexisting trainings) or control condition (pre-existing trainings only) using matched pair randomization. MHFA was found to increase RAs' subjective knowledge and self-efficacy (i.e., self-perceived ability to identify students in distress and confidence to help). However, no effects manifested for help-seeking or other outcomes

among student residents. Lipson et al. (2014) thus concluded that "GKTs may need to be revised, and entirely new strategies may need to be considered" since they appear "insufficient for promoting intervention behaviors among gatekeepers or help-seeking and wellbeing in student communities" (p. 618).

In summary, the evidence base for GKTs on college campuses is dominated by assessment of trainees' knowledge, attitudes, and self-efficacy. Less attention has been given to community-level outcomes, such as objective measures of target populations' help-seeking behavior (i.e., at-risk students in the community). More research is also needed to understand weak associations between gatekeepers' knowledge, attitudes, self-efficacy, intentions, and actual intervention behaviors (i.e., referring students to professional care). Scholars examining mental health interventions have cautioned that attitudes and intentions are generally poor predictors of future behavior (Glasman & Albarracın, 2006). Many studies have revealed positive effects of trainees' knowledge, attitudes, self-efficacy, and intentions, yet these improvements are insufficient in enhancing mental health. Additional RCTs are needed to unravel the causal impact of GKTs on outcomes such as gatekeeper skills, gatekeeper referral patterns, student help-seeking, and student wellbeing. Finally, researchers must investigate the sustainability of GKT effects; many relevant studies only measured immediate post-training outcomes—a limitation hindering most intervention evaluations reviewed in this chapter. Longer-term follow-up thus far suggests that positive effects can diminish over time. For instance, in a cohort study evaluating QPR delivered to university staff, faculty, and students, Indelicato and colleagues (2011) identified positive training effects on self-perceived knowledge, attitudes, self-efficacy, and behavioral intentions from pre- to posttest. At 3-month follow-up, participants mentioned needing additional information about available resources, listening skills, how to express concern, and how to persuade someone to get help. Subsequent research should address gatekeepers' long-term abilities to identify, intervene, and refer at-risk students to appropriate care. Measurement over time is needed to allow trainees to apply what they have learned and for effects to mature.

Screening Interventions

Screening interventions, in addition to gatekeeper interventions, can change how the college community responds to students experiencing mental health symptoms. The Substance Abuse and Mental Health Services Administration's Comprehensive Systems Framework and

the U.S. Preventive Services Task Force both recommend depression screening, specifically when linked to effective treatment options (Horowitz, Ballard, & Pao, 2009; Siu et al., 2016; Substance Abuse and Mental Health Services Administration, 2019). Colleges are widely implementing screening interventions (Fedorchak & Cimini, 2018; Schwartz & Davar, 2018). Helping campus health centers identify and respond to students with mental health symptoms is especially important (Chung et al., 2011; Schwartz & Davar, 2018; Shepardson & Funderburk, 2014). Although many college students access on-campus health services (Eisenberg, Golberstein, & Gollust, 2007), most students with mental health symptoms—and more than 80% of those who die by suicide—do not use school-based mental health services (Lipson et al., 2015; Lipson, Lattie, et al., 2019).

Several studies have shown that screening for mental health symptoms and suicidal thoughts and behaviors in school settings holds promise for detecting and linking at-risk individuals to care (Eisenberg, Hunt, & Speer, 2012; Hom et al., 2015; Michelmore & Hindley, 2012; Peña & Caine, 2006). For example, an intervention increased mental health service access through screening for suicide risk and using motivational interviewing in an RCT (King et al., 2015). An evaluation of the National College Depression Partnership indicated that providing screening in primary care on eight campuses enhanced students' treatment engagement and clinical outcomes (Chung et al., 2011): 12 weeks after initial screening, 86% of students identified as having clinical depression were in active treatment, 58% had agreed upon a self-management goal with their clinician, and 52% exhibited functional improvement (Chung et al., 2011). Other university screening programs have led students (i.e., 13.5–48% of those screening positive) to accept referrals, enter mental health treatment, and attribute their entry to screening (Haas et al., 2008; Moutier et al., 2012). Several studies of school-based suicide screening programs with younger adolescents have reported follow-up referral rates greater than 50% (Brown & Grumet, 2009; Gould et al., 2009; Hallfors et al., 2006; Husky, Sheridan, McGuire, & Olfson, 2011; King, Hill, Wynne, & Cunningham, 2012; Robinson et al., 2013). A systematic review demonstrated that college suicide screening programs improved identification of at-risk students; however, the positive predictive value of subsequent suicidal behavior in school settings was relatively low in some reports (range: 6–33%) (Peña & Caine, 2006). These findings coincide with data on adult populations suggesting that although suicide screening may enhance referral to treatment, it does not necessarily reduce suicide risk (LeFevre & U.S. Preventive

Services Task Force, 2014; O'Connor, Gaynes, Burda, Soh, & Whitlock, 2013; Zalsman et al., 2016).

Further research is ultimately needed to understand how, when, where, and for whom screening programs are effective (Peña & Caine, 2006). Several questions remain unanswered in college settings. Are screening programs most cost-effective when administered with the general student body or at-risk students (Mann et al., 2005; Zalsman et al., 2016)? Are standard screens equally effective, valid, and reliable across different student populations (Mann et al., 2005; Zalsman et al., 2016)? Low response rates on screening surveys may mean that participants are more likely to seek help, underscoring the need for strategies to support students least likely to access care (Larzelere, Kuhn, & Johnson, 2004). These interventions are infeasible for schools with long mental health service waitlists and limited community treatment options.

School-Wide Interventions Combining Gatekeeper Training, Screening, and More

Most gatekeeper and screening studies have not measured the impacts of community-wide implementation on the student body's mental health. A few school-wide interventions, often involving a combination of these activities, have been assessed accordingly. The best-known model for changing community norms to enhance mental health help-seeking and reduce suicide was devised outside higher education (AFMOA/SGZP, 2001; Knox, Litts, Talcott, Feig, & Caine, 2003; Knox et al., 2010): the Air Force Suicide Prevention Program has inspired campus-wide approaches to mental health promotion and suicide prevention (Jed Foundation, 2019), but it has not been formally evaluated within the college context. A 2-year campus-wide intervention, MindWise, was assessed in Australia (Reavley, McCann, Cvetkovski, & Jorm, 2014). This multifaceted intervention involving mental health first aid training, emails, posters, and campus events was evaluated through a cluster randomized trial in which campuses were randomized to an intervention or control group. Although no effects were detected on students' mental health literacy or wellbeing (Reavley et al., 2014), the intervention increased staff's knowledge and recognition of depression and risky alcohol consumption (Reavley et al., 2014). Nonetheless, the study's risk of bias was high due to contamination between the intervention and control groups (i.e., students could attend different campuses during the same year) and high attrition (Fernandez et al., 2016; Reavley et al., 2014).

Despite MindWise being ineffective with college students, school-wide interventions involving middle and high school students indicate that such programs can reduce suicidal

behavior and increase service referrals by changing school norms (Ahern et al., 2018; Aseltine & DeMartino, 2004; Ciffone, 2007; King, Strunk, & Sorter, 2011; Schilling, Lawless, Buchanan, & Aseltine, 2014; Wasserman et al., 2015; Wyman et al., 2010). For instance, the Sources of Strength intervention builds "socioecological protective influences" through peers (trained leaders from diverse social cliques, including at-risk adolescents) conducting well-defined messaging activities and altering school norms over 3 months, ultimately enhancing students' (especially those at-risk) perceptions of the acceptability and effectiveness of seeking help from adults (Wyman et al., 2010, p. 1654). Students receiving the intervention were over four times more likely to refer suicidal friends to adults versus students in schools that had not received the intervention (Wyman et al., 2010). As another example, the Signs of Suicide Prevention Program combines gatekeeper training curricula—teaching students to recognize and respond to signs of suicide and depression in themselves and others—with a brief screening for depression and suicide risk (Aseltine & DeMartino, 2004). RCTs reveal significantly lower rates of suicide attempts, coupled with greater knowledge and more adaptive attitudes about depression and suicide, among students in the intervention group (Aseltine & DeMartino, 2004; Aseltine, James, Schilling, & Glanovsky, 2007; Schilling et al., 2014). Students' race/ethnicity, grade, and gender did not influence the intervention's impact, highlighting its benefits for diverse youth (Aseltine et al., 2007). Additional research is needed to determine whether school-wide mental health interventions that change community norms are only effective in the more closed environment of middle and high schools or are relevant in postsecondary settings as well.

Post-Crisis Interventions (Postvention)

Some community-level interventions aim to improve the college community's response during and after mental health crises. A suite of evidence-based interventions exist to help K–12 schools prevent and reduce psychological distress symptoms among students after traumatic events (Kataoka, Langley, Wong, Baweja, & Stein, 2012). For instance, school-based interventions after Hurricane Katrina reduced such symptoms in students (Jaycox et al., 2010). At colleges, faculty and administrator responses to hate crimes, White supremacist violence, and bias incidents can inform students' stress, anxiety, fear, and longer-term responses (El-Amin, 2016). Proactive activities to promote healing and reduce risk (i.e., contagion) following a suicide—"postvention"—are recommended (Higher Education Mental Health Alliance, 2018; Miller & Mazza, 2018). However, there is limited evidence for effectiveness: a systematic

review of post-suicide intervention programs, including school-based ones, revealed no protective effect against suicide attempts or deaths (Szumilas & Kutcher, 2011). But outreach at the scene of suicide was effective in encouraging survivors to attend a support group and seek help in dealing with their loss (Szumilas & Kutcher, 2011). Additionally, contact with a counselor for recent familial survivors of suicide has been found to reduce psychological distress in the short term (Szumilas & Kutcher, 2011).

Learning Environment Interventions

A large category of community-level interventions are those seeking to change responses to mental health within the college curriculum and learning environment (Dooris, Wills, & Newton, 2014; Newton, Dooris, & Wills, 2016; Orme & Dooris, 2010). According to a systematic review of "setting-based" postsecondary interventions to promote mental health, most programs focused on "modifying the way students are taught and assessed" (Fernandez et al., 2016, p. 805). Redesigning learning environments to become health-promoting is challenging; however, mounting evidence suggests that changes to syllabi, courses, and the classroom culture can help address college students' mental and general health (Baik et al., 2019; Bowman, 2010c; Knutson et al., 2021; Orme & Dooris, 2010; Slavin, Schindler, & Chibnall, 2014). Institutions, schools, departments, and instructors have opportunities to (1) integrate mental health-promoting content and skills training into curricula, (2) reduce classroom and learning stressors that interfere with students' mental health (Robotham, 2008), and (3) adopt pedagogical practices that support students' wellbeing (Bowman, 2010c; Harper & Neubauer, 2021; University of Texas, 2020).

Course content that emphasizes mental health and coping can combat stigma and normalize caring for one's mental health (Howard, Schiraldi, Pineda, & Campanella, 2006). Higher education institutions have created mental health-focused courses and incorporated class content related to student mental health (Conley, Travers, et al., 2013; Riley & Mcwilliams, 2007). Mental health interventions that provide students skills training through routine curricula appear useful. Conley et al. (2013) reviewed universal promotion and prevention programs for beneficial effects on college students' social-emotional skills, self-perceptions, and psychological distress. The authors found that interventions "delivered as a class were more effective than small-group programs (e.g., workshops outside of class; interventions conducted in residence halls)" (p. 296). They hypothesized that students might be accustomed to learning course content

and become invested in instructor-led interventions. Although the interventions did not differ in preintervention equivalence or sample attrition, class interventions were longer on average ($M =$ 25.3 hours, $SD = 12.5$) than small-group programs ($M = 8.6$ hours, $SD = 3.8$; $p = .004$). An academic semester may afford students sufficient time to acquire new skills.

Evaluations of mental health related courses or curriculum integration are generally methodologically weak. Most involve simple pretest-posttest assessments without a control group or adequate follow-up (Hood, Jelbert, & Santos, 2021; Wasson et al., 2016). Many include small, self-selecting samples that over-represent women and students pursuing health-related degrees, raising questions about generalizability (Hood et al., 2021; Regehr et al., 2013; Wasson et al., 2016; Young, Macinnes, Jarden, & Colla, 2020; Yusufov et al., 2018). For instance, a pre–post assessment of a mandatory two-credit, active learning, and general education course "Health in Modern Society" revealed a statistically significant increase in students' mental health knowledge and a non-statistically significant increase in mental health wellness behaviors (Becker et al., 2008). A mandatory Health Enhancement Course (eight lectures + six 2-hour tutorials focused on the link between mental and physical health, behavior change strategies, mindfulness-based therapies, and more) delivered to first-year medical students led to pre-to-post improvements in quality of life, depression symptoms, and global mental health (Hassed, De Lisle, Sullivan, & Pier, 2009). A mandatory leadership course on student wellbeing enhanced pre-to-post connectedness, hope, and general positive youth development qualities (Shek et al., 2012; Shek, Yu, Ma, Sun, & Liu, 2013). Brief lectures integrated in a medical school curriculum were associated with stress reduction (Bughi, Sumcad, & Bughi, 2006). However, consistent research conclusions remain elusive due to high attrition (e.g., Bughi, Sumcad, & Bughi, 2016) and lack of a randomized control group. Several institutions, such as Georgetown University and the University of Washington, have incorporated mental health content into academic courses via curriculum infusion (Dobkin & Hutchinson, 2013; Lo et al., 2018; Riley & Mcwilliams, 2007), but such efforts have yet to be evaluated.

As an example of a more robust evaluation, a prospective quasi-experimental study indicated that a psychosocial wellness seminar for first-year college students improved students' psychosocial wellbeing and stress management (Conley, Travers, et al., 2013). Additionally, a non-randomized controlled trial of a brief mindfulness-based stress reduction elective course for psychology students led to greater mindfulness and self-compassion (but not anxiety) after 6

weeks (Bergen-Cico, Possemato, & Cheon, 2013). A growing number of colleges are offering courses on positive psychology with encouraging results (Hood et al., 2021; Oades, Robinson, Green, & Spence, 2011; Parks, 2011; Young et al., 2020). In a quasi-experimental study that included an active, non-randomized control group, psychology students who initially scored low on mental wellbeing and high on valuing happiness benefited most from a course-integrated positive psychology program (Young et al., 2020). A class on the science of happiness improved first-year undergraduates' mental wellbeing compared to wait-listed controls, whether the content was delivered live or online, amid the isolation of COVID-19 (Hood et al., 2021). Additionally, a quasi-experimental longitudinal study showed that an online course involving self-directed mental health behavioral interventions for public health graduate students led to improvements in general and mental health at 12-week follow-up (Brett, Wang, Lowe, & White, 2020). These studies highlight the benefits of mental health courses and curricular infusion, both in-person and online. Findings also suggest the value of assessing cost-effective, scalable courses and curricula through rigorous research designs with diverse student populations. Further studies are warranted to test the mental health effects of diversity-related courses. Institutional LGBTQ course offerings (for credit) and taking more than one "diversity course" have been associated with lower psychological distress among sexual minority students (Woodford, Kulick, Garvey, Sinco, & Hong, 2018) and psychological wellbeing among first-year students, respectively (Bowman, 2010a, 2010b, 2010c).

In addition to adopting mental health-promoting curricula, colleges have striven to reduce stressors associated with students' learning, testing, and the classroom environment. Structured and transparent assessment practices can limit anxiety and equitably improve students' learning, retention, and testing performance (Chiou, Wang, & Lee, 2014; Cross & Angelo, 1988; Murphy & Destin, 2016). Shiralkar and colleagues (2013) reviewed controlled trials of stress management interventions for medical students, which included changes in the length and type of curricula and grading systems; pass/fail grading reduced students' stress and anxiety. A few studies indicated lower perceived stress and higher wellbeing, without declines in academic performance, among medical students given a pass/fail grading system versus a multi-interval grading system (Bloodgood, Short, Jackson, & Martindale, 2009; Reed et al., 2011; Rohe et al., 2006). Saint Louis University School of Medicine instituted several changes to address structural conditions contributing to students' stress and mental health problems: the school moved to a

pass/fail grading system, reduced contact hours in students' first and second years by 10%, introduced longitudinal electives, and established learning communities of faculty and students. The school also added a required course on mindfulness and resilience. Slavin et al. (2014) identified lower levels of depression, anxiety, and stress among students exposed to these changes compared to older cohorts, but another study detected no effects (Tucker, Jeon-Slaughter, Sener, Arvidson, & Khalafian, 2015). Research on nursing students showed that a student-centered, problem-based curriculum was associated with lower distress and fewer academic, clinical, and personal concerns than a traditional curriculum (Jones & Johnston, 2000). More investigation is needed into the mental health effects of problem-solving and student-centered teaching, as well as other pedagogical methods such as "flipped teaching[4]." Current evidence remains "scarce, contradictory, and ultimately inconclusive" (Fernandez et al., 2016, p. 805).

Beyond changing curricula and practices to reduce stressors, schools and instructors have implemented pedagogical activities to enhance protective factors and support students' mental wellbeing. Enhancing conditions for wellbeing in the classroom is important since not flourishing (a measure of positive mental health) is associated with academic impairment among students (Keyes et al., 2012). Relevant foci include social connectedness, mindfulness, a growth mindset, resilience, gratitude, inclusivity, self-compassion, and life purpose (University of Texas, 2020). These factors have well-documented positive associations with mental health (Dvořáková et al., 2017; Emmons & McCullough, 2003; Johnson, Taasoobshirazi, Kestler, & Cordova, 2015; Neff, 2011); faculty have hence been encouraged to foster them in the classroom (Simon Fraser University, 2017; University of Texas, 2020; University of Washington, 2021). However, the mental health impacts of related classroom-based interventions have not been formally examined. A growing number of institutions have begun including a syllabus statement emphasizing the importance of mental health and use of resources as needed (Cimini & Rivero, 2018). Such statements normalizing help-seeking can influence students' intentions to contact instructors for assistance (Gurung & Galardi, 2021). Incorporating inclusive content and resources for marginalized students into syllabi may have mental health benefits as well (Knutson et al., 2021).

---

[4] Flipped teaching is a methodology that prioritizes active learning in the classroom and direct instruction (e.g. viewing of lectures and presentations) at home (https://flippedlearning.org/).

The evidence base for community-level interventions to enhance college student mental health is small. Learning environment and screening interventions currently show the greatest promise. However, correlational research in higher education (e.g., Sontag-Padilla et al., 2016) and research in other settings, such as secondary schools (e.g., Ahern et al., 2018), suggests the value of designing and evaluating interventions to improve community norms—around identifying, supporting and referring students in psychological distress, responding to crises, and fostering wellbeing in the classroom—to advance mental health at colleges and universities.

Institutional Interventions

Student success, mental health, and public health empirical literatures are dominated by a focus on microlevel (e.g., individual and interpersonal) interventions and critiqued for "corresponding mitigated results" (Cohen, Scribner, & Farley, 2000; Harper, 2012; Ladson-Billings & Tate, 1995; Gloria Ladson-Billings, 2005; O'Connell, Boat, & Warner, 2009; Richard, Gauvin, & Raine, 2011, p. 314; Strayhorn, 2012; Titus, 2004; Trickett, 2009). Evaluated interventions largely aim to "fix the person" (i.e., student, patient) instead of "fixing the system" (Dooris, 2009; McNair, Albertine, Cooper, McDonald, & Major, 2016). While there is increasing attention to the importance of schools in addressing the health, there is limited understanding of how schools themselves—including their physical environments, policies, and budgets—impact student mental health (Anderman, 2002; Eccles & Roeser, 2003; Strayhorn, 2012). Colleges do not just provide avenues for reaching students and delivering interventions; they dramatically shape students' lives during a period of significant development (Dooris et al., 2014; Newton et al., 2016). Rates of depression, anxiety, and help-seeking vary considerably across postsecondary institutions, but relatively little research has examined what accounts for this variation. Two studies that investigated impact of school characteristics, such as sector (public/private), size, and selectivity, were inconsistent and could not fully account for the variation across campuses (Cress & Ikeda, 2003; Lipson et al., 2015). Many, including the National Institutes of Health, have called for greater understanding of how school contexts and institutional factors impact health and health disparities (Eccles & Roeser, 2011; Palmer, Ismond, Rodriquez, & Kaufman, 2019).

Evidence suggests institutional transformation, rather than isolated interventions, is the most promising path to enhancing the health of members (Eckel & Kezar, 2003; Hawe, Shiell, & Riley, 2009; Newton et al., 2016). Healthy structures foster healthy interpersonal processes,

which foster healthy students (Fernandez et al., 2016). Changing the "surround" to reduce student stressors and increase student resources has considerable potential for improving mental health (Geronimus et al., 2016; Hatzenbuehler et al., 2014; Pearlin & Bierman, 2013). As the prevalence of mental health problems on college campuses continues to rise (CCMH, 2016; Twenge et al., 2010) and counseling services cannot keep up with demand (LeViness, Bershad, & Gorman, 2017), changing institutions to promote mental health, prevent mental illness, and reduce levels of psychological distress among students is essential and financially advantageous (Eisenberg, Golberstein, et al., 2009). While the limited research on institutional interventions has rarely employed the quasi-experimental methods needed to reveal causal linkages (DuPont-Reyes & Villatoro, 2019; Fernandez et al., 2016), below I review the evidence regarding institutional opportunities—through the physical environment, policies, and other avenues—to shape student mental health.

Physical Environment

Attention to the impact of the built environment on mental health is growing (Evans, 2003; Ferguson, Cassells, MacAllister, & Evans, 2013; Sullivan & Chang, 2011).

Means Restriction. A primary pathway to mental health risk reduction via the built environment is through restricting means for suicide. Extensive evidence documents means restriction as one of the few suicide prevention strategies with proven effectiveness (Cimini & Rivero, 2018; Hawton, 2007; Mann et al., 2005; Sarchiapone, Mandelli, Iosue, Andrisano, & Roy, 2011; Zalsman et al., 2016). Restricting gun access can lead to major declines in adolescent suicide (Miller & Hemenway, 2008). Reducing access to a lethal dose of acetaminophen reduced analgesic-related suicide in the UK (Hawton, 2007). Bridge barriers (e.g., safety nets) reduce suicide deaths from bridges (Beautrais, 2001; Cantor & Hill, 1990; Reisch & Michel, 2005). Means restriction is particularly critical for young people, whose time from first thought to suicide attempt is so short (Deisenhammer et al., 2009; Hawton, 2007; Schwartz & Davar, 2018; Williams, Davidson, & Montgomery, 1980). Those who are obstructed in their initially selected means generally do not seek alternatives and survive for decades (Daigle, 2005; Gunnell, Fernando, Hewagama, Priyangika, & Konradsen, 2007; O'Donnell, Arthur, & Farmer, 1994).

Common suicide methods used by college students include jumping, hanging, poisoning or overdose, and shooting (Schwartz, 2011), warranting review of institutional policies on gun possession, access to laboratories and/or toxic substances, and high-risk substance use

(Washburn & Mandrusiak, 2010). By securing rooftops, bridges, and parking lots with barriers and alarms, colleges can limit jump opportunities. Installing breakaway closet rods in dorms and limited weight-bearing shower components can prevent hangings. Hosting drug take-back programs can decrease access to prescription drugs (Schwartz & Davar, 2018; Stratford, 2012). Studies examining the effectiveness of such strategies for college suicide prevention are hard to find (Fernandez et al., 2016), but their documented effectiveness elsewhere suggests they should be utilized and studied in higher education contexts.

Health-Promoting Physical Spaces. Colleges and universities can also enhance emotional wellbeing through the built environment. Best designs for healthy physical spaces are being developed (i.e., WELL Building Standard, Whole Building Design Guide) and applied in higher education settings (Worsley, Harrison, & Corcoran, 2021). These include connecting buildings to nature and providing access to natural light, opportunities for social interaction, and control over furniture choices. Research has begun on college stress reduction spaces (Klainberg & Ryan, 2010), "healing gardens" (Lau & Yang, 2009), and the use of windows and "digital windows" (plasma displays showing real-time outside scenes) to reduce stress and increase sense of belonging, connectedness, and mental restoration (Friedman, Freier, Kahn, Lin, & Sodeman, 2008). Issues of accessibility have been raised as important stressors impacting the lives of students with disabilities, TGGD students, and others (Goldberg et al., 2019; Nolan et al., 2018; Seelman, 2014, 2016). Efforts to enhance accessibility beyond Americans with Disabilities Act guidelines should be evaluated for mental health impacts.

Policies

Studies of mental health effects of higher education policies (or school-level policies more broadly) are rare (Brubaker & Mancini, 2017; Byrd & McKinney, 2012; Dooris, 2006; Fernandez et al., 2016), despite evidence to suggest many mechanisms through which they may affect student mental health. Policies may influence student mental health by shaping behavior (e.g., help-seeking and interpersonal harm) and improving campus climate (Goldberg, Beemyn, & Smith, 2018; Rhodes, Singleton, McMillan, & Perrino, 2005; Schwartz & Davar, 2018; Streng & Kamimura, 2015; Woodford et al., 2018). Relevant policies include those pertaining to substance use, sexual assault, leaves of absence, financial aid, and diversity, equity, and inclusion (including protection from discrimination). Medical amnesty policies, for example, improve perceptions of campus climate (Martinez, Johnson, & Jones, 2018)—which is linked to

enhanced student mental health (Byrd & McKinney, 2012; Charles et al., 2021)—and increase help-seeking in substance use emergencies (Haas, Wickham, McKenna, Morimoto, & Brown, 2018; Oster-Aaland & Eighmy, 2011; Oster-Aaland, Thompson, & Eighmy, 2011). However, benefits may not be conferred equitably across race and gender (Carroll et al., 2020). Alcohol policies can foster student behavior that benefits mental health. At Historically Black Colleges and Universities, for example, male students who are aware of campus alcohol policies are less likely to binge drink than unaware peers (Rhodes et al., 2005).

Sexual Assault Policies. The prevention of college sexual assault through strong policies and programs is essential for student mental health (Carey, Norris, Durney, Shepardson, & Carey, 2018; Dilip & Bates, 2021). Yet, detrimental aspects of these policies persist (Hoffmann & Mastrianni, 1992; Holland, Cortina, & Freyd, 2018; McGregor, 2016). For example, college sexual assault investigation and adjudication processes can traumatize survivors (McGregor, 2016). "Compelled disclosure" policies following sexual assault have been widely implemented, but evidence suggests negative consequences for survivors, employees, and institutions (Holland et al., 2018). Large variation in sexual assault policies (e.g., in definitions; identified points of contact; access to confidential, anonymous, third-party, or 24-hour reporting) across schools provides an opportunity to investigate differential impacts on student mental health (Potter et al., 2020; Sabina & Ho, 2014; Streng & Kamimura, 2015).

Leave of Absence Policies. Empirical research has also identified detrimental aspects of college leave of absence policies (Hoffmann & Mastrianni, 1992), attracting considerable media attention in recent years (e.g., Anderson, 2021; Farrow, 2016; Giambrone, 2015; Jancer, 2019). Clinicians, lawyers, mental health organizations, students, and the U.S. Department of Education have issued guidance for leave policies to best support student mental health and civil rights (e.g., Active Minds Inc., 2017; Bazelon Center for Mental Health Law, 2007; Kafka, 2020; Meilman, 2016; Mezey, 2021; Tan, 2019). Existing policies, while varied (Hoffmann & Mastrianni, 1992), have been criticized when they force leave or withdrawal and undermine treatment access (National Council on Disability, 2017; Schwartz, 2016). A time series study assessed changes in suicide rates before and after a university implemented a policy mandating four sessions of professional assessment, instead of leave, for students making a suicide threat or attempt (Joffe, 2008). In contrast to increasing suicide rates at similar institutions without this policy during the same time period, rates of suicide dropped from 6.91 to 3.78 per 100,000

enrolled students pre-to-post policy implementation (Joffe, 2008). Concerningly, the rate declined 72.2% among undergraduates but rose 94.6% among graduate students, emphasizing the need to assess policy effectiveness among different student populations (Joffe, 2008).

Readmission requirements are also a concern (National Council on Disability, 2017). A policy survey found that many colleges require stipulated time away from campus prior to reentry, documented evidence of "behavioral change" through completed coursework or employment elsewhere, and a screening interview by counseling center staff for return (Hoffmann & Mastrianni, 1992), but a review of empirical evidence suggests that these requirements do not predict successful reintegration (Hoffmann & Mastrianni, 1992). Interruptions in academic work for psychiatric reasons do not preclude continued academic engagement, and, in fact, such engagement may facilitate treatment and recovery (Hoffmann & Mastrianni, 1992). Legal cases since 1992 have likely led to revision of these policies (Kafka, 2020; Meilman, 2016). Research is needed to determine their current state and the degree to which institutions are accommodating flexible reintegration and benefitting student health and wellbeing.

Diversity, Equity, and Inclusion Policies. Policies pertaining to diversity, equity, and inclusion (DEI) are also relevant to student mental health, though rarely studied for these impacts in higher education. Evidence does suggest that multilevel, multicomponent DEI interventions can influence campus climate, student experiences of discrimination and marginalization, and social integration and support—all of which have significant implications for student mental health (Banks, 2015; Chia-Chen, Szalacha, & Menon, 2014; Gummadam et al., 2016; Hawe, Shiell, & Riley, 2004; Pittman & Richmond, 2008; Stebleton, Soria, & Huesman, 2014; Woodford, Han, Craig, Lim, & Matney, 2014). For example, lesbian, gay, and bisexual college students experience fewer verbal threats at schools with sexual orientation-inclusive nondiscrimination policies versus not (Hong, Woodford, Long, & Renn, 2016). Nondiscrimination policies inclusive of gender identity (in addition to sexual orientation) are directly associated with reduced discrimination experiences among sexual minority students, which is associated with less psychological distress (Woodford et al., 2018). Transgender and gender diverse (TGGD) college students who are aware of trans-affirming school policies endorse greater belonging and positive perception of campus climate (Goldberg et al., 2018), which are known to be positively associated with mental health (Gower et al., 2018; Woodford et

al., 2015). In qualitative studies, TGGD students stress the importance of inclusive school policies—such as inclusive nondiscrimination policies, gender-inclusive restroom options, and preferred name and pronoun policies for campus records—for their health and wellbeing (Goldberg et al., 2018, 2019; Pitcher et al., 2018; Sausa, 2005). The school safety and mental health benefits of policies that enumerate protections for sexual and gender minorities is supported by research in K-12 institutions and warrants further research in higher education. For example, among younger LGBT adolescents, those who perceive their school to have sexual and gender minority-inclusive policies report less victimization, more positive school climate, greater safety in school, and better mental health (Goodenow et al., 2006; Hatzenbuehler, 2011; Hatzenbuehler & Keyes, 2013; Kosciw, Greytak, Palmer, & Boesen, 2014; Kull, Greytak, Kosciw, & Villenas, 2016; O'Shaughnessy, Russel, Heck, Calhounn, & Laub, 2004).

As DEI efforts continue to expand and vary across colleges and universities (Espinosa, Hollie, & Way, 2016; Gagliardi, Espinosa, Turk, & Taylor, 2017), research is needed to identify how policies can be designed, implemented, and promoted to enhance student health and wellbeing. Research should investigate policy impact on undocumented, first-generation, sexual, gender, and racial/ethnic minority students and others. There is also evidence that school composition and racial diversity influence mental health and wellbeing (Bellmore, Witkow, Graham, & Juvonen, 2004; Elharake et al., 2019; Graham, 2018; Graham, Munniksma, & Juvonen, 2014; Juvonen, Kogachi, & Graham, 2018). For example, underrepresented minority diversity within medical residency programs is associated with reduced risk for depression for both minority and majority racial groups (Elharake et al., 2019), so policies and initiatives that alter the makeup of the student body should be evaluated as an avenue for improving student mental health. Policies and structures implemented to support increasingly diverse student bodies, such as identity-support centers (i.e., women, multicultural, and LGBTQ centers), warrant further study as well (Heck, Flentje, & Cochran, 2011; Hurtado, Milem, Clayton-Pedersen, & Allen, 1999; Poteat et al., 2012).

Financial Aid Policies. Institutional decisions regarding the form, timing, and distribution of financial aid are a relatively unexplored but likely powerful lever for enhancing student mental health. A robust research and funding enterprise has focused on assessing their impact on student enrollment, persistence, and retention (Dynarski & Scott-Clayton, 2013; Goldrick-Rab, Harris, & Trostel, 2009; Herbaut & Geven, 2020; Hossler, Ziskin, Gross, Kim, &

Cekic, 2009; Nguyen, Kramer, & Evans, 2019; Page & Scott-Clayton, 2016). However, researchers should also investigate psychological effects given that financial stress taxes mental health (Adams, Meyers, & Beidas, 2016; Cadaret & Bennett, 2019; Gonzales, Suárez-Orozco, & Dedios-Sanguineti, 2013; Raza, Williams, Katsiaficas, & Saravia, 2019), and aid may impact academic, social, financial, and psychological pressures. For example, qualitative research shows that access to financial aid through the California Dream Act reduced undocumented students' anxiety and mental health burdens (Raza et al., 2019). On the other hand, financial support can increase academic pressure due to associated academic requirements, social pressure for students in unfamiliar environments, and financial pressure if provided in the form of loans or if insufficient to cover all costs (Corredor, González-Arango, & Maldonado-Carreño, 2020; Nora, Barlow, & Crisp, 2006). Negative psychological effects of student loans and debt have in fact been demonstrated. Debt broadly impacts psychological functioning (Brown et al., 2005; Selenko and Batinic, 2011), anxiety (Cooke et al., 2004; Drentea, 2000), and mental disorders (Jenkins et al., 2008; Sweet, Nandi, Adam, & McDade, 2013) and poses psychological burdens for college students (Dowd & Coury, 2006; Robb, Moody, & Abdel-Ghany, 2011). A merit-based, forgivable loan program was associated with higher depressive symptoms and lower social support and academic self-efficacy for first-year college students, likely at least in part due to the pressure to graduate in order to receive the promised aid (Corredor et al., 2020). Student loans also undermine psychological functioning after graduation, in early adulthood (Walsemann, Gee, & Gentile, 2015). Further research is needed to understand how institutional choices regarding the timing and form of aid distributed to students impacts their mental health, as it does their academic outcomes and retention (DesJardins, Ahlburg, & McCall, 2002).

Other Institutional Interventions

Many other aspects of colleges—their finances, staffing, reward structures, hiring practices, public safety investments, mission statements, strategic plans, guiding documents, and more—no doubt influence student mental health but are strikingly absent from the empirical literature. These components of institutional infrastructure are recognized as key to shaping school culture and climate and to supporting and sustaining institutional transformation (Hurtado, Carter, & Kardia, 1998; Kezar, 2019; Kezar & Eckel, 2002; Mayhew et al., 2016; Milem, Chang, & Antonio, 2005; Milem, Dey, & White, 2004; Pascarella, 2006; Smith, 2015). As such, aligning them to prioritize and invest in advancing student mental health is critical. And

yet, the empirical literature offers little guidance on the specifics of how to do so. For example, college budgetary decisions have not been evaluated for their effects on student mental health. If and how much schools charge for counseling sessions, bill insurance companies for third party payments, include a mandatory health fee for all students that provides free counseling sessions, and limit the number of available sessions varies across institutions and time (Robert P. Gallagher, 2012). These financially-based considerations likely influence help-seeking and treatment receipt, but they have not been evaluated within higher education. Limited research on the relationship between higher education expenditures and student academic outcomes has produced contradictory results (Pike, Smart, Kuh, & Hayek, 2006), suggesting complex relationships that are contingent on school sector (public vs private). As another example, despite frequent student and police interaction around mental health (Bauer-Wolf, 2018; Margolis & Shtull, 2012) and robust evidence from outside of higher education that both direct and vicarious contact with police can pose a threat to mental health, especially for people of color (Devylder et al., 2018; Feldman, 2015; Geller, Fagan, Tyler, & Link, 2014; Nordberg, Crawford, Praetorius, & Hatcher, 2016; Nordberg, Twis, Stevens, & Hatcher, 2018; Smith Lee & Robinson, 2019), almost no quantitative research has studied how the presence and practices of college law enforcement affects student mental health. Further research is needed to fully elucidate how institutions of higher education, themselves, through their physical environments, policies, finances, and human resources shape student mental health. Nonetheless, the documented value of a) institutional infrastructure alignment for goal attainment and b) low-cost, equity-enhancing policies for student wellbeing warrants acting now and partnering with researchers to measure impacts over time.

Public Policy: The Enabling Environment

Postsecondary institutions present a critical avenue for preventing the onset and severity of mental health disorders, closing treatment gaps, and reducing the 10-year span it typically takes to receive treatment. Harnessing this relatively untapped opportunity provided by colleges would significantly contribute to addressing a major source of disease burden globally (Abbafati et al., 2020), the leading cause of disability nationally (Michaud et al., 2006; The World Health Organization, 2004), and the $2.5 trillion annual cost of the disorders to the world economy (The Lancet Global Health, 2020). Local, state, and federal policies and budgets act to restrain or enhance colleges' ability to address student mental health and achieve the aims of prevention and

treatment. A full discussion of every factor—external to colleges—currently or potentially enabling them to advance student mental health is beyond the scope of this review, but I briefly describe some important levers shaping higher education's ability to contribute to addressing our large and growing global mental health crisis.

Federal Policies

The National Council on Disability provided an overview of federal policies relevant to serving college students with mental health disabilities (National Council on Disability, 2017). These include the Higher Education Act, laws mandating accommodations for individuals with disabilities—The Americans with Disabilities Act, Section 504 of the Rehabilitation Act, and the Fair Housing Act—and privacy laws, the Family Educational Rights and Privacy Act (FERPA) and Health Insurance and Portability Accountability Act (HIPAA). The American with Disabilities Act (ADA) mandates nondiscrimination in schools for individuals with physical and mental disabilities (including those with mental health disorders) but it is less commonly employed to protect the rights of those with mental disabilities (Hinshaw & Stier, 2008). FERPA and HIPAA shape schools' ability to communicate with parents regarding mental health concerns (Eells & Rockland-Miller, 2011). This may protect student privacy and encourage help-seeking in some cases and, in others, pose a barrier to securing needed support and resources for students.

Several federal funding policies directly shape student mental health and colleges' ability to provide mental health services. Federal funding for college student mental health, such as that provided through the Garett Lee Smith Memorial Act (GLSMA), likely reduced suicide mortality and suicide attempts among 10 to 24-year-olds (Walrath et al., 2015). Researchers further demonstrated that savings from avoided hospitalizations associated with the averted suicide attempts outweighed the GLSMA cost to fund multifaceted community-based suicide prevention strategies through colleges (Garraza, Walrath, Goldston, Reid, & McKeon, 2015). Recently, federal stimulus and relief funds following the COVID-19 pandemic have shown direct impacts on mental health and are being used by colleges to invest in student mental health (Cooney & Shaefer, 2021; Department of Education, 2021). For example, Foothills-De Anza Community College (Los Altos Hills, California) used funding from the American Rescue Plan Higher Education Emergency Relief Fund to establish a Mental Wellness Ambassador program aimed at promoting mental health services, reducing stigma surrounding mental health

disorders, creating community, and fostering an inclusive and non-judgmental campus culture (U.S. Department of Education, 2021b).

State Policies

State policies impact college student mental through many avenues. There is evidence that structural mental illness stigma in the form of state laws (e.g., requiring disclosure of mental health diagnoses and treatment to become a lawyer, apply for a driver's license, and seek child custody) interferes with student help-seeking and colleges' ability to address the treatment gap (Corrigan, Markowitz, & Watson, 2004; Hinshaw & Stier, 2008; Organ, Jaffe, & Bender, 2016). Revisions to these laws, such as states removing mental health questions from their bar applications, should be evaluated as potentially cost-effective interventions for increasing student help-seeking (Holcombe, 2019; Working Group on Attorney Mental Health, 2019).

Growing evidence indicates that protective state policies (e.g., extending rights or prohibiting discrimination) can improve mental health and healthcare seeking among gender and sexual minorities (Gleason et al., 2016; Goldenberg, Reisner, Harper, Gamarel, & Stephenson, 2020b; Hatzenbuehler & Keyes, 2013; Perez-Brumer, Hatzenbuehler, Oldenburg, & Bockting, 2015; Raifman, Moscoe, Austin, Hatzenbuehler, & Galea, 2018). For example, living in states with more protective and less discriminatory laws for TGGD people is associated with reduced discrimination, victimization, psychological distress, mental health days, and lifetime suicide attempts among TGGD adults (Du Bois, Yoder, Guy, Manser, & Ramos, 2018; Gleason et al., 2016). Research has also identified a connection between state antibullying laws and increased K-12 school safety (Kull et al., 2016). How state laws influence students' college experiences at more and less inclusive institutions within the state warrants investigation. Other state legislation, such as bans on Affirmative Action—known to be negatively associated with campus psychological climate and to increase Black, Hispanic, and Native American adolescent cigarette and substance use (Garces & Cogburn, 2015; Glasener, Martell, & Posselt, 2019; Kidder, 2012; Venkataramani et al., 2019)—and laws known to improve outcomes for undocumented students through providing in-state tuition (Flores, 2009; Gonzales et al., 2013) should also be evaluated for their mental health impacts.

Statewide funding and initiatives, for example, through California's Mental Health Services Act, have resulted in major investments benefitting college student mental health and taxpayers (Ashwood et al., 2015; Clark et al., 2013; Sontag-Padilla, Seelam, Kase, Woodbridge,

& Stein, 2017; Stein et al., 2012; Woodbridge, Goldweber, Yu, Golan, & Stein, 2014). In 2016, House Bill 28 was enacted by the State of Ohio requiring each public institution of higher education to provide incoming students with information on mental health resources. A similar bill (SB 1624) was passed in Texas in 2015. More recently, the Governor of Ohio designated $16 million to be distributed to colleges to support the increased demand for mental health services for students ($13.5 million in direct aid to schools, $5 million from CARES Act Coronavirus Relief Funds, $8.5 million from the Governor's Emergency Education Relief Funds).

State and federal laws pertaining to health insurance and clinical practice influence the mental health care that colleges are able to provide and students are able to access. Laws restricting the provision of therapy across state lines interfere with students remotely seeing providers from home if they attend college in another state, as well as colleges' ability to provide counseling to students residing in other states. The need for remote healthcare during the COVID-19 pandemic has led to rapid loosening of many of these restrictions (National Academies of Sciences Engineering & Medicine, 2021), and it remains to be seen whether and how these changes will become permanent. The Affordable Care Act increased the proportion of young people with health insurance but resulted in more college students remaining on their parent's insurance and limiting colleges' ability to bill insurance companies for mental health services provided. Only a small proportion of college and university counseling centers accept insurance (LeViness et al., 2019); although there are challenges related to parent-child privacy and administrative burdens, increasing the reimbursement from insurance plans is an important opportunity for more adequately funding student mental health services (National Academies of Sciences Engineering & Medicine, 2021).

Local Policies

Local policies pertaining to the sale and advertising of alcohol shape college students' drinking behaviors (Kuo, Wechsler, Greenberg, & Lee, 2003). Specifically, the availability of large volumes of alcohol, low sale prices, and frequent promotions is associated with higher binge drinking rates, and the number of on- and off-campus establishments positively correlates with number of drinks consumed (Kuo et al., 2003). Advocacy for healthy local alcohol policies and the study of them serve as a model for student mental health. Local policies and marketing potentially shaping health-promoting behaviors, such as sleep and exercise, should be investigated for mental health effects.

Conclusion: Summary of Intervention Evidence

Multilevel intervention is most effective for improving population health (Sallis et al., 2008). This review reveals that colleges and universities have evidence-based interventions to adopt and implement at every level of the socioecological model to enhance student mental health. Skill-training (especially but not only focused on mindfulness and social skills), peer support, belonging, screening, mental health curriculum, means restriction, and inclusive policy interventions stand out for quality evidence demonstrating their effectiveness with college students. Other areas urgently warrant intervention design and evaluation: coaching (with motivational interviewing); family interventions; interventions to reduce interpersonal harms and bias; school-wide interventions to address community norms, climate, stigma, help-seeking and referral; and institutional policies and practices. The review also demonstrates that funders, policy makers, and leaders outside of colleges and universities have many avenues and mechanisms for strengthening colleges' ability to support student mental health. Overall, the review identified significant support for effective interventions at the individual-level of the ecological model and growing evidence for the effectiveness of interpersonal interventions. However, far more work is needed to assess the impact of community-level interventions on community-level outcomes and evaluate institutional-level interventions. Across all intervention levels and types, the evidence base will be strengthened through more experimental and quasi-experimental research designs, broader and more objective outcome measures (ideally combining mental health and academic outcomes), assessed over the long-term, and evaluations that include a greater diversity of student populations (e.g., TGGD and cisgender students, community college and 4-year students).

Based on the need for future work identified through this review, the next two empirical chapters in this dissertation focus on 1) enhancing understanding of how institutional factors, policies, and practices shape student mental health and 2) expanding research focused on diverse student populations facing mental health inequities. Specifically, I examine two areas of institutional policy and practice—policing and TGGD-inclusion policies—with likely implications for student mental health. In Study 2 (Chapter 3) I look at experiences and impacts across student race and gender identity and in Study 3 (Chapter 4) I focus on mental health inequities between TGGD and cisgender students. The work aims to continue this chapter's efforts to move beyond describing the mental health crisis facing institutions of higher education

and identify opportunities and potential solutions for addressing student mental health and mental health equity.

CHAPTER 3: Policing in Higher Education: An Examination of Common, Consequential, and Concerning Student Experiences and Support for Change

Introduction

Campus police are an increasingly common aspect of college life (Reaves, 2015). They are regularly the first and primary responders to address concerns about students' mental health (Kase, Osilla, Seelam, Woodbridge, & Stein, 2016; Lanser, Freimer, & Craske, 2021; Margolis & Shtull, 2012). Yet policing is rarely mentioned within the body of resources intended to advise schools on opportunities to address the escalating mental health crisis on their campuses (Douce & Keeling, 2014; Jed Foundation, 2019; Kadison & DiGeronimo, 2004; National Academies of Sciences Engineering & Medicine, 2021; Steve Fund & Jed Foundation, n.d.; Wesley, 2019). Colleges and universities invest heavily in campus police forces whose impacts on students are rarely studied (Jenkins, Tichavakunda, & Coles, 2020; Reaves, 2015). This chapter addresses this research gap by investigating how policing shapes the college experiences of diverse students and studying their views on campus police presence and policy. Emerging evidence, from nonrepresentative mostly qualitative studies, indicates that policing may in fact perpetrate mental health harm at colleges and universities—especially for SOC (Dizon, 2021; Jenkins et al., 2020; Landers, Rollock, Rolfes, & Moore, 2011; McCabe, 2009; Smith et al., 2007; Solorzano, Ceja, & Yosso, 2000).

In the ensuing section, I provide an overview of policing in higher education followed by a literature review outlining likely differential police-related experiences for students based on race and gender identity. Racial and gender differences must be considered to fully evaluate the role of policing and to optimize institutional resource deployment to equitably advance students' safety, mental health, and academic outcomes. Prior research has been constrained by a largely binary conceptualization of gender with little exploration of the spectrum of students' racial identities. I approached my review and data collection with a focus on the intersection of racial and gender identity minority status, namely how each shapes students' experiences with and views of campus police.

Policing in Higher Education – A Growing Presence

College students are policed by campus law enforcement agencies as well as local law enforcement (e.g., the local police department, sheriff's office) (Reaves, 2015). Most campus police forces have patrol and arrest powers on and off campus (Reaves, 2015). Additionally, many campus law enforcement agencies have formal arrangements allowing outside agencies to police students alongside campus police (Reaves, 2015). Nearly all 4-year public colleges and universities in the United States employ sworn[5] (96%) and armed (94%) police officers, as do nearly half of private colleges (46% and 45% sworn and armed, respectively) (Reaves, 2015). These data (from the most recent[6] Survey of Campus Law Enforcement Agencies conducted by the Bureau of Justice Statistics) reflect a meaningful expansion of campus law enforcement agencies, with these forces growing faster than student enrollment (Reaves, 2015). Police at these agencies are also becoming increasingly weaponized (e.g., with assault rifles, grenade launchers, and armored vehicles provided by a Department of Defense program) (Bauman, 2014; Weissman, 2020a). These shifts have arisen even as crime on college campuses, which is rarely violent, declines (Reaves, 2015; Sloan, 1992; U.S. Department of Education, 2021a). Weaponizing has also occurred even though armed campus police officers' core functions do not include crime response; these officers are most often involved in traffic direction and control, security at auditorium events, traffic accident response, traffic law enforcement, service call dispatch, executive protection, building lockup/unlock, and parking enforcement[7] (Reaves, 2015).

Maintaining an expanded police force requires considerable institutional investment. Concrete cost data remain limited, but available figures suggest that the average operating budget for campus police and security services (at 4-year schools with 5000+ students) was almost $3 million in 2011 (United States Department of Justice, Office of Justice Programs Statistics, & Bureau of Justice, 2015). These data were derived from personal analyses of the publicly available Bureau of Justice long-form survey subsample. Three million is likely an underestimate, as most respondents reported receiving income from additional sources that they did not include in their budget estimates. For comparison, available data indicate that the average

---

[5] Those with general arrest powers
[6] 2010–2011
[7] Full list of functions reported by more than 90% of campus law enforcement agencies

college counseling center operating budget at similar institutions (4-year schools with 5000+ students) in the same year was one-third that of policing ($1,106,288) (Mistler et al., 2012). The budget for both campus entities is likely several magnitudes higher today.

Campus police are increasingly among the first or primary responders to a growing range of student issues (Reaves, 2015). Historically, students have tried to avoid police during mental health and substance use crises (Hollister, Scalora, Hoff, & Marquez, 2014)—yet campus officers are frequently the primary responders to students experiencing mental health problems (Kase et al., 2016; Lanser et al., 2021; Margolis & Shtull, 2012). These officers determine whether students should be directed to support services or to disciplinary processes, whether through the school or the criminal justice system, with implications for a number of student outcomes (Lanser et al., 2021; Margolis & Shtull, 2012). Campus police departments' missions further convey their intended commitment to many student-oriented objectives, such as creating "a welcoming, inclusive and safe learning environment at all times" (https://www.usd.edu/administration/university-police/mission-statement); "providing a safe and inclusive community where students, faculty, staff and visitors may experience a sense of security and belonging" (https://police.wfu.edu/about-us/); and "improving the quality of life for all" (https://www.dpss.umich.edu/content/about/mission-vision/). However, representative research is needed to discern whether campus police are achieving these aims for all students. Findings will help guide optimal deployment of institutional resources meant to enhance students' wellbeing and success.

Previous Evidence on Policing and Student Outcomes

The near ubiquity of police in students' lives at higher education institutions has received minimal scholarly attention (Jenkins et al., 2020). Outside of higher education, policing is broadly recognized as a public health issue, and its contributions to health and educational inequities are attracting growing interest (Cooper & Fullilove, 2016; Cooper, Moore, Gruskin, & Krieger, 2004). Major health associations have united in formally documenting how police practices can harm health (APHA, 2018; Ehrenfeld & Harris, 2020). More voices are being amplified regarding the discriminatory and racist nature of law enforcement for a long list of marginalized groups; related policing acts have been shown to contribute to inequitable rates of incarceration, injury, poor health, and death (Edwards, Esposito, & Lee, 2018; Feldman, 2015; Fleming et al., 2021; Kramer & Remster, 2018). Violent and nonviolent police encounters can

adversely affect individuals' physical and emotional health (Alang, McAlpine, & Hardeman, 2020; Dennison & Finkeldey, 2021; DeVylder et al., 2017; Devylder et al., 2018; Devylder et al., 2017; English et al., 2017; Feldman, 2015; Geller, Fagan, Tyler, & Link, 2014; Oh, DeVylder, & Hunt, 2017; Smith Lee & Robinson, 2019). Negative encounters are more common for people with mental health disorders (Devylder et al., 2017). Youth and adolescents are not protected from these poor experiences (Nordberg et al., 2016): scholars have documented detrimental impacts on mental health symptoms (Turney, 2020) and educational achievement, particularly among Black[8] boys (Gottlieb & Wilson, 2019; Johnson, 2015; Legewie & Fagan, 2019). Studies in the K–12 setting have documented how school-based officers in particular contribute to the criminalization of racially minoritized youth (Crosse et al., 2021; Nolan, 2011; Skiba, Arredondo, Gray, & Raush, 2018).

Within higher education, emerging qualitative research—mostly conducted with Black students—has consistently highlighted police as a source of racialized aggression (McCabe, 2009; Mills, 2020; Solorzano et al., 2000; Torres et al., 2010). Such work indicates that the disproportionate policing of Black compared to White students is commonly experienced as accumulated microaggressions, which affect the racial climate on campus (McCabe, 2009; Solorzano et al., 2000). Students have described being regularly singled out to prove their student status with their school ID and being disproportionately surveilled, questioned, and disciplined in academic spaces, residence halls, and other social settings (Jenkins et al., 2020; McCabe, 2009; Solorzano et al., 2000). These experiences reflect both micro- and macro-level aggressions. They have influenced Black doctoral students and alumni as well as undergraduates (Torres et al., 2010). Researchers have also identified gender differences, with some evidence showing that Black women express less fear of police encounters than their male counterparts (Nordberg et al., 2018) and that Black men are especially susceptible to police attention (McCabe, 2009).

Qualitative research with Black men has further documented the psychological impact of racialized policing in higher education (Dizon, 2021; Jenkins et al., 2020; Smith et al., 2007). Many Black students experience "painful psychological stress responses" and a "diminished

---

[8] Some of the summarized studies use the term "African American"; however, I use "Black" throughout this manuscript to inclusively refer to African Americans, Caribbean Blacks, Africans, and other Black ethnic groups residing in the United States.

sense of belonging" (Smith et al., 2007, p. 573), even when they are not direct police targets, because the "campus response to criminality" assumes Blackness to be an indicator of potential culpability with impacts on all persons of color (Mills, 2020, p. 44). Scholars have also highlighted how campus crime alerts and ID checks perpetrate and reinforce racist stereotypes (Dizon, 2021; Jenkins et al., 2020; Pelfrey, Keener, & Perkins, 2018; Smith et al., 2007; Smith, Mustaffa, Jones, Curry, & Allen, 2016). Consequently, some Black students feel disenfranchised within their campus communities, as they do not feel protected by police when a crime has occurred on campus; they instead mobilize to protect themselves from police (Dizon, 2021). Black men also often feel singled out by law enforcement personnel for being both Black and male (Smith et al., 2007) and have reported being alienated, injured, and exhausted because of their "race-gender" identities (Dizon, 2021; Jenkins et al., 2020; Nordberg et al., 2018; Smith et al., 2007).

Gender effects have been confirmed in the sole two quantitative studies to date on college students and police. In a convenience sample of 102 Black undergraduates at a Midwestern university, police contact was highly stressful for Black students, with men most stressed by this contact and women more stressed by other events (e.g., intimate interpersonal stressors, nonpolice discrimination) (Landers et al., 2011). In another quantitative (but nonrepresentative) study of college students and police, attitudes toward police in general—not campus police specifically—were significantly more negative and mistrustful among racial minorities than Whites. The author identified fewer differences between men and women but did not examine the intersection of race and gender and, as in other described studies, only used a binary measure of gender (Mbuba, 2010). Additionally, despite being one of only two studies of college students and police to include White and racial minority students, the researcher grouped Asian, African Americans, Hispanic, and "other non-White" students together. The current study complements existing research by separately considering Whites, Asians, and underrepresented minorities (URMs)—a common category in higher education research and practice that includes African American/Black, American Indian or Alaskan Native, Hispanic/Latin(x), Native Hawaiian or Pacific Islander, Middle Eastern/Arab, and multiracial students.

Moreover, no higher education research on policing appears to have addressed transgender and gender diverse (TGGD) students—students whose gender identity or expression differs from their assigned sex at birth or does not fit within the male−female binary. TGGD

people have generally been left out of empirical studies on police experiences and perspectives within and outside higher education (Dwyer, 2011). Meanwhile, policymakers have acknowledged law enforcement bias and violence toward TGGD individuals on a national scale (National Center for Transgender Equality, 2015). More research is needed in light of a National Transgender Discrimination Survey in which half of transgender adults reported being uncomfortable seeking police assistance. Slightly less than one-quarter (22%) of those who interacted with police reported police harassment, with Black transgender people citing much higher rates of harassment and assault than other transgender adults (J. M. Grant et al., 2011).

The reviewed findings on harmful policing of Black transgender people and Black cisgender men (i.e., individuals whose sex or gender identity corresponds to the sex assigned on their birth certificate), coupled with the lack of research on students from across the gender spectrum with diverse racial identities, highlight the need for an intersectionality approach to understanding students' experiences with police. Kimberlé Crenshaw coined the term "intersectionality" to address the "marginalization of Black women within not only antidiscrimination law but also in feminist and antiracist theory and politics" (Carbado, Crenshaw, Mays, & Tomlinson, 2013, p. 303; Crenshaw, 1991; Crenshaw, 1989). This approach involves recognizing that how one is treated is the result of multiple, intersecting identities (Collins, 1990; Crenshaw, 1991; Crenshaw, 1989) and entails "overlapping and conflicting dynamics of race, gender, class, sexuality, nation, and other inequalities" (Cho, Crenshaw, & Mccall, 2013, p. 788). This concept has been applied outside of higher education to demonstrate that race, gender, age, and class play interactive (multiplicative, not additive) roles in shaping police interaction (Christiani, 2021). For instance, Christiani (2021) found that race shapes one's probability of being searched during a traffic stop: Blacks and Latinos are most likely to experience searches, whereas Asians are least likely. Discrepancies also exist for gender, with men being more likely to experience searches than women. Ultimately, as the number of "suspicious identities that a driver holds increases" across race, gender, age, and class, one's probability of being searched rises in a multiplicative manner (p. 909). The present study thus extends previous investigations, which have included limited binary gender measures (i.e., male/female) and focused almost exclusively on small, nonrepresentative samples of Black students, to explore several groups' experiences: those of White, Asian, and URM TGGD

students; cisgender men; and cisgender women (Jenkins et al., 2020; Mbuba, 2010; Nordberg et al., 2018; Smith et al., 2007).

Next Steps to Understanding

National attention to ongoing police-based injustice toward Black Americans has sparked protests and a search for solutions, including by college students and administrators. Several students experiencing mental health crises have been the victims of racist incidents and violence (e.g., murder) by campus police, fueling calls for change at colleges and universities (Bauer-Wolf, 2018; Chessman & Wayt, 2016; Harvard Law Review, 2016; Whitford, 2018; Wootson, 2018). Students and faculty have advocated for abolishing campus policing, reallocating funds to services such as mental healthcare, and cutting ties with local police departments (Dizon, 2021; Sainato, 2020). Task forces are being formed to assess university law enforcement investment, practice, and policy and to implement improvements to advance campus safety (e.g., Hampton, 2021; Marowski, 2021). For example, after the murder of George Floyd by Minneapolis police officers, the University of Minnesota responded to student demands and ended its contracts with the Minneapolis Police Department for large events and specialized services (McWilliams, 2020). The University of California Berkeley has begun to remove police from handling mental health issues in their community (https://bpm.berkeley.edu/projects/active-projects/reimagining-uc-berkeley-campus-and-community-safety-program/mental-health). Other institutions have pursued reform to better prepare police to respond to mental health crises, as these initiatives have shown effectiveness elsewhere (Compton, Bahora, Watson, & Oliva, 2008; Hails & Borum, 2003). For example, the State of California trained campus law enforcement professionals to more accurately identify, assess, and respond to students in psychological distress (Kase et al., 2016).

Despite calls for institutional attention to public safety policy, practices, and investment in higher education, little remains known about how policing affects students—*all* students and those with intersecting marginalized identities. Indeed, few empirical studies have considered students' experiences with, attitudes toward, concerns about, and desire for change regarding how their campuses are policed. Researchers and policymakers therefore lack a clear understanding of how increasingly diverse student bodies are interacting with police and reacting to their presence and to proposed changes to campus policing policies. I examined these topics with a large, representative survey of students at a public university in the Midwest. Specifically,

this study considers 1) students' encounters with police while in college, querying frequency and quality of interactions with police as well as academic impacts; 2) students' attitudes toward police presence on campus, specifically whether it makes them feel safe and supports their mental health; 3) students' concerns about campus police; and 4) students' perspectives on policy changes under debate to improve public safety at their school. Across each area, I examined subgroups at the intersection of race and gender identity to address the encounters, attitudes, concerns, and policy perspectives of White cisgender men, White cisgender women, White TGGD students, Asian cisgender men, Asian cisgender women, Asian TGGD students, URM cisgender men, URM cisgender women, and URM TGGD students.

This research responds to the call for "more scholarly discourse centering on the role of campus security in campus life" (Jenkins et al., 2020, p. 5). Qualitative evidence has identified police as a source of racialized aggression for Black cisgender students (primarily men). However, this finding has not been contextualized based on quantitative estimates of the prevalence of police encounters across the general student population or representative estimates within specific populations (Mills, 2020). For example, Black students are not a monolithic population; the extant literature involving small, nonrepresentative samples may not fully capture these students' experiences and perspectives. Representative survey research will expand the understanding of this matter. Current students' attitudes toward and concerns about the police presence on their campus warrant further consideration (Dizon, 2021). In particular, descriptive data related to students' experiences, attitudes, and concerns will pave the way for enhanced understanding of police impacts on academic and mental health outcomes (Jenkins et al., 2020; Smith et al., 2007). This study will also clarify differences across race (i.e., by separately considering White, Asian, and URM students) and gender identity (i.e., cisgender and TGGD students) as well as the likely interactions between both dimensions.

This study is not intended to uncover race-based differences within the URM category but to consider American Indian or Alaskan Native, Hispanic/Latin(x), Native Hawaiian or Pacific Islander, Middle Eastern/Arab, and multiracial students in addition to Black students. This work also enriches the literature by separately considering the experiences of Asian students, who are often neglected in policing research but whose experiences vary from those of other people of color (Christiani, 2021; Peck, 2015; Rosenbloom & Way, 2004). Finally, while researchers have rarely differentiated between students' experiences with campus police and

local law enforcement officers, this research broadly documents students' encounters with police (from any agency) and specifically scrutinizes the impacts of and students' attitudes toward campus police. Results offer valuable insight for higher education leaders, policymakers, and stakeholders by providing a more holistic view of students' experiences along with relevant data to identify institutional policy-change opportunities.

Methods

This study involved adding a new set of survey items to the Healthy Minds Survey (HMS), a national survey on college students' mental health. HMS is an annual cross-sectional survey that has been administered at hundreds of colleges since 2007 (Healthy Minds Network, 2021). It is a self-administered online survey, completed by students on computers or smartphones via the Qualtrics platform.

The survey was distributed to a random sample of 35,000 degree-seeking students at a public Midwestern university (henceforth given the pseudonym "Apple U") between March 10 and April 2, 2021. The sole exclusion criterion was that students had to be aged 18 or older. To incentivize participation, students were entered into a raffle for 1 of 212 cash prizes totaling $4,000 (two $500, ten $100, and two-hundred $10 gift cards). Raffle eligibility was not contingent on survey completion. The survey response rate was 15.4%, which is consistent with Healthy Minds Survey response rates across time and institution types, as well as with other online surveys (Eisenberg, Golberstein, et al., 2007; Lipson et al., 2015; Lipson, Phillips, et al., 2021).

Student information for recruitment (names, email addresses) and nonresponse analyses (sex, race/ethnicity, academic level, and grade point average) were obtained from the university registrar. These data were used to construct nonresponse weights, equal to 1 divided by the estimated response probability, to adjust for potential differences between responders and nonresponders. A logistic regression predicted the likelihood of response associated with each variable. Weights were larger for respondents with underrepresented characteristics, helping to ensure that the estimates were representative of the Apple U student population in terms of these attributes.

The university's Institutional Review Board approved this study, which was covered by a Certificate of Confidentiality from the National Institutes of Health. Students' recruitment emails contained a personalized link to the survey, which brought them to an informed consent page.

They were required to agree to the terms of participation before beginning the survey. Reminder emails were sent 6, 14, and 19 days after the initial invitation; the first email was sent in the name of the university's Provost, and all others were sent in the name of the Vice President for Student Life.

Survey Setting

Apple U is a large, public, predominantly White R1 research institution in the Midwest. The campus police department is a full-service law enforcement agency. The police force was established in 1992, and all university safety and security responsibilities were consolidated into one division in 2012. As of Fall 2021, the division employs just over 300 people (predominantly White men), with an annual budget (2020–21) of nearly $33 million. Officers have full authority to investigate, search, arrest, and use reasonable force, if necessary, to protect people and property. Their comprehensive use-of-force policy trains officers before issuing weapons, including chemical spray, batons, Tasers, and firearms. The department responded to nearly 500,000 calls for service between 2017 and 2020, only 5% of which were criminal (e.g., violations of the controlled substance act, larcenies). They were primarily service activities (e.g., lost and found, student escorts, outreach) (30%), patrol (e.g., property checks, foot patrol) (23%), alarms (i.e., unlocks, service, fire alarms) (20%), and medical responses (e.g., responses to the emergency department, medical escorts, medical assistance) (14%). The department partners closely with several local law enforcement agencies and shares areas of concurrent jurisdiction off campus. Police are the primary responders to students in mental health distress at Apple U. If students are in distress due to a mental health problem and/or there is marked concern about a student's mental health/wellbeing, the police are most likely to be involved in checking on the student. Depending on the location, residence life staff (in a dorm) or faculty (in a classroom) might also be involved in responding. The police (campus police from on-campus buildings, residences, and other locations; and local police from off-campus locations) provide transportation when hospitalization is necessary.

Measures

Survey measures were developed based on a review of available measures assessing individuals' attitudes toward police outside of higher education. Items were adapted and refined through feedback and revision from 30 topical experts. The expert panel included scholars with expertise in higher education, psychology, policing, mental health, Black men, college students

of color, and survey methodology; practitioners with a deep understanding of Apple U, Apple U's policing practices, and student life at Apple U; and students representing diverse racial and gender identities.

Encounters with Police. Several measures broadly concerned respondents' interactions with police while enrolled at Apple U. Respondents were told that "We would like to learn more about your experience with police as a student at [school]: on campus, where you live, and where you work. For these questions, when we refer to police, we include campus police, local police, and other law enforcement in the community (e.g., County Sheriffs, State Police, Immigration and Customs Enforcement (ICE) Officers)." If respondents endorsed contact with police during their time as a student, they were asked about the number of interactions (1–3, 4–6, 7–9, 10+) and quality: "How would you characterize these experiences?" (1 = *very positive*, 2 = *positive*, 3 = *neutral*, 4 = *negative*, 5 = *very negative*) and "Were you treated fairly in these interactions with police?" (1= *all of the time*, 2 = *some of the time*, 3 = *none of the time*). All respondents were asked "How have your thoughts and feelings about interaction or potential interaction with police while a [school] student affected your academic performance?", scored on a 5-point Likert-type scale (1 = *very positively*, 5 = *very negatively*).

Attitudes Toward Campus Police Presence. Students' attitudes toward campus police presence were assessed by asking respondents the extent to which they agreed or disagreed that 1) "Police presence on campus makes me feel safe"; 2) "Having armed officers on campus is good for my mental health"; and 3) "Having unarmed police officers on campus is good for my mental health" (scored on a 4-point Likert-type scale anchored by 1 = *strongly agree* and 4 = *strongly disagree*). These items were later converted into binary variables indicating whether respondents agreed with the statement (those who strongly agreed or agreed) or not (those who disagreed or strongly disagreed). Respondents were also asked to rate their level of comfort with the police being involved in responding if they were in distress due to a mental health concern on a 4-point Likert-type scale, with a binary variable created to reflect discomfort (very uncomfortable or uncomfortable) or comfort (comfortable or very comfortable). Prior to answering this item, respondents were informed of Apple U's practice of having police conduct wellness checks and respond to students in mental health distress.

Mental health was not formally defined in the survey, such that respondents could apply their own interpretation. However, before completing attitude measures, all respondents were

asked at least 24 questions about their mental health status and service use. For example, they completed validated scales assessing flourishing (positive mental health) and symptoms of depression, anxiety, and eating disorders (Patient Health Questionnaire-9, General Anxiety Disorder-7, SCOFF scale); suicidality; mental health diagnoses; and use of clinical services and medication. All respondents were therefore primed with the same, clinical introduction to the concept of mental health.

Concerns About Campus Police. Respondents were asked which of the following are or are not concerns you have about campus police/[Apple U] Department of Public Safety and Security." Items corresponded to the following topics: 1) racial profiling (targeting people of color without evidence of criminal activity and based on perceived race, ethnicity, national origin, or religion); 2) carrying weapons; 3) lack of training (e.g., in anti-racism, mental health, and/or unconscious bias); 4) lack of oversight; 5) too much funding/overspending; and 6) "other." Response options included "not a problem," "might be a problem," "this is a problem," "this is a big problem," and "I don't know enough about this to say.

Perspectives on Policy Solutions. Respondents were asked to "Please rate the extent to which you support or do not support the following at [Apple U]." Listed policy actions included 1) increased training for campus police officers (e.g., anti-racism training, mental health training, unconscious bias training); 2) increased oversight of campus police; 3) disarming campus police officers; 4) redirecting funds from policing into community resources (e.g., counseling services, multicultural student affairs); 4) expanded use of nonsworn, unarmed staff at [Apple U] to respond to safety, security, and mental health concerns and to decrease the use of police on campus; 5) expanded use of nonsworn, unarmed staff at [Apple U] to respond to safety, security, and mental health concerns and[9] to discontinue use of police on campus (i.e., abolition); and 6) "other." Response options spanned "do not support," "neutral," "somewhat support," "support," and "don't know."

Race and Gender Identity. Subgroup differences were examined across students' racial and gender identities. Gender identity was classified using the 2-step method (National Academies of Sciences, Engineering, 2020; Reisner, Conron, et al., 2015). Respondents were

---

[9] Unfortunately, there was a typo in the survey phrasing; the actual wording of the final item read "Expand the use of nonsworn, unarmed staff at [school name] to respond to safety, security, and mental health concerns and decrease and discontinue use of police on campus (i.e., abolition)."

asked "What was your assigned sex at birth?" (response options: *female*, *male*, *intersex*) and "What is your current gender identity?" (response options: *female*, *male*, *trans female/trans woman*, *trans male/trans man*, *genderqueer/gender nonconforming*, *gender nonbinary*, *self-identify*). Respondents who indicated their gender identity as trans, genderqueer/gender nonconforming, gender nonbinary, or self-identified were classified as TGGD, as were respondents whose current gender identity did not match their indicated sex assigned at birth. Respondents whose current gender identity matched their sex assigned at birth were classified as cisgender (male or female, per their indication).

Respondents who identified their race/ethnicity only as "White" were classified as White; those who only selected "Asian American/Asian" were classified as Asian; and those who identified as African American/Black, Hispanic/Latin(x), Middle Eastern, Arab, or Arab American, American Indian or Alaskan Native, Native Hawaiian or Pacific Islander, and/or "self-identify" were classified as URMs. Respondents who identified as more than one of these races or as one or more of these races *and* "Asian American/Asian" were classified as multiracial (and still URM). Distinct racial groups were placed into one URM category due to the small sample of TGGD students within each racial group (9 Black, 7 Latinx, 2 Arab, 25 multiracial, and 2 "Other" students; see Table **3.1**). Researchers could consider examining subgroup differences by race only (e.g., see **Table 3.2**) in the future. I used the larger URM group in order to include TGGD students and examine the intersection of gender identity and race.

Student Demographic and Background Variables. For descriptive purposes, the survey also assessed students by age (18–23, 23–25, 26–30, 31+), degree level (undergraduate vs. graduate), sexual orientation (sexual minority vs. heterosexual), first-generation status (neither parent held a bachelor's degree vs. at least one parent who did), international status (international student vs. not), housing (university housing vs. non-university housing), and police interactions prior to college. Respondents who selected lesbian, gay, bisexual, queer, questioning, and/or "self-identify" as their sexual orientation were classified as sexual minorities; those who indicated "heterosexual" were not. Regarding housing, respondents were asked where they currently lived. Those who indicated "on-campus housing, residence hall," "on-campus housing, apartment," "fraternity or sorority," or "on- or off-campus cooperative housing" were classified as living in university housing. Those who indicated "off-campus, non-university

housing," "off-campus, with my parents (or relatives)," or "other" were classified as living in non-university housing.

Analyses

Analyses were primarily descriptive, intended to elucidate variation in students' police encounters and attitudes by race and gender. All analyses were conducted in Stata 15 and weighted using the sample probability weights described above. Weighted prevalence rates were calculated for all respondents, White cisgender men, White cisgender women, White TGGD students, Asian cisgender men, Asian cisgender women, Asian TGGD students, URM cisgender men, URM cisgender women, and URM TGGD students for categorical variables. A chi-square analysis was run for each categorical variable to test for differences in prevalence rates across race/gender groups. Weighted percentages, odds ratios (OR), and 95% confidence intervals (CIs) are presented for binary attitude variables for White cisgender women, White TGGD students, Asian cisgender men, Asian cisgender women, Asian TGGD students, URM cisgender men, URM cisgender women, and URM TGGD students relative to the reference group of White cisgender men.

Results

Study Sample

The sample included 5,379 students. More than half (55%) of respondents were White, 25% were Asian, and 20% were URM (4.4% Black, 4.0% Latinx, 2.4% Arab, 9.1% multiracial, and 0.81% "self-identify"). Half identified as cisgender women, 47% as cisgender men, and 3% as TGGD students. The majority (65%) were aged 18–23 and were undergraduates (64%). Nearly one-quarter (21%) identified as a sexual minority, 18% were first-generation students, 11% were international students, and a relatively small proportion (16%) lived in university housing. As shown in **Table 3.1**, students' demographic characteristics and experiences varied by racial group.

Table 3.1 *Descriptive Statistics of Sample (*N *= 5379)*

Student Characteristics		Full Sample %	(N)	White %	(N)	Asian %	(N)	Black %	(N)	Latinx %	(N)	Arab %	(N)	Multiracial %	(N)	Other[a] %	(N)
Full sample		100	5379	55	3102	25	1183	4.4	181	4.0	222	2.4	126	9.1	496	0.81	41
Gender identity	Cisgender Male	47	1725	45	942	51	424	46	55	47	137	51	44	46	153	64	20
	Cisgender Female	50	3460	51	2042	47	733	50	116	50	78	47	79	49	316	34	19
	Transgender Male	.43	26	.45	15	.36	5	.96	2	1.2	3	0	0	.12	1	0	0
	Transgender Female	.27	8	.12	4	.19	2	0	0	1.1	1	0	0	.13	1	0	0
	Genderqueer	.63	40	.71	23	.29	5	.81	2	.35	1	0	0	1.2	8	0	0
	Gender nonbinary	1.7	99	1.9	64	.91	13	1.7	3	1.0	2	1.9	2	2.9	14	1.3	1
	Self-identify[b]	.21	15	.25	10	0	0	.72	2	0	0	0	0	.29	1	1.6	1
Age	18–23	65	3190	66	1880	64	693	55	92	51	100	64	76	68	318	63	27
	23–25	14	869	14	508	14	195	14	24	15	39	9.6	16	13	76	19	8
	26–30	15	923	13	490	17	228	19	41	18	49	20	27	13	71	28	11
	>31 years	6.9	397	6.6	224	5.5	67	11	24	16	34	6.1	7	5.5	31	17	8
Degree level	Undergraduate	64	3080	66	1827	62	661	53	82	49	91	59	68	69	315	43	16
	Graduate	36	2273	34	1260	38	515	47	98	51	131	41	58	31	179	57	25
Sexual orientation	Sexual Minority	21	1208	23	759	13	177	19	42	26	54	11	15	29	150	17	8
	Heterosexual	79	4133	77	2328	87	993	81	137	74	166	89	110	71	344	83	33
Socioeconomic status	First-generation	18	973	14	443	20	913	34	56	60	125	24	30	14	71	17	6
	Non-first-generation	82	4310	86	2633	80	913	66	118	40	90	76	92	86	417	83	34
International status	International student	11	553	1.9	59	33	394	7.2	14	13	31	17	19	5.0	22	26	12
	Non-international	89	4824	98	3042	67	789	93	166	87	191	83	107	95	474	74	29
Housing	University housing	16	843	15	2659	20	243	23	32	11	24	19	21	13	66	23	9
	Non-university	84	4528	85	443	80	935	77	149	89	198	81	104	87	430	77	32

Notes. Table values are weighted percentages and unweighted counts. [a] The "Other" race column includes students who identified as "American Indian or Alaskan Native," "Native Hawaiian or Pacific Islander," or opted to "self-identify" their race and wrote descriptions such as "Turkish," "Central Asian," or "Pakistani." [b] These survey respondents opted to "self-identify" their gender identity and wrote descriptions such as "agender" or "questioning."

Table 3.2 *Enccounters with Police by Race*

		Full Sample		White		Asian		Black		Latinx		Arab		Multi		Other[a]	
		%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Interaction Frequency																	
	0	54	2930	49	1573	66	770	47	94	56	123	53	70	49	236	57	26
	1-3	41	2070	44	1293	32	352	46	73	40	83	40	46	45	203	41	13
	4-6	3.9	189	4.7	132	2.2	23	6.4	9	1.2	3	3.5	4	3.7	17	1.9	1
	7-9	.54	29	.62	20	.19	3	0	0	20	3	0	0	.85	3	0	0
	10+	.86	38	.90	22	.31	3	1.2	1	1.1	1	2.6	3	1.5	8	0	0
Interaction Quality																	
	Very positive	15	328	15	204	18	64	7.8	6	13	13	12	7	14	29	11	2
	Positive	28	637	28	412	32	120	15	12	19	18	37	19	23	51	25	4
	Neutral	42	1042	43	655	38	161	56	49	43	4941	39	21	42	109	34	4
	Negative	12	290	11	170	10	43	17	12	23	18	12	7	16	35	16	2
	Very negative	2.6	68	2.6	43	1.7	7	3.7	4	2.2	2	0	0	4.4	10	13	2
Treated fairly																	
	None of the time	3.9	89	2.8	41	4	16	6.4	5	3.4	4	6.5	4	7.9	18	11	1
	Some of the time	20	467	17	258	19	79	40	34	33	27	19	11	25	54	7.6	1
	All of the time	76	1770	80	1163	77	285	53	43	63	62	74	39	67	161	81	12
Academic Impact																	
	Very positive	2	87	1.7	46	2	19	1.8	2	2.9	5	1.4	2	2.1	9	2.3	1
	Positive	2.5	117	1.7	50	5.2	55	.45	1	1.1	3	20	2	.99	4	0	0
	Neutral	92	4761	93	2811	90	1008	86	150	89	185	95	115	89	440	95	35
	Negative	3.3	176	2.4	77	2.4	33	11	18	4.5	12	2	3	7.1	31	3.0	1
	Very Negative	.64	31	.60	19	.47	5	10	2	2.4	3	0	0	.61	2	0	0

Notes. Table values are weighted percentages and unweighted counts. [a] The "Other" race column includes students who identified as "American Indian or Alaskan Native," "Native Hawaiian or Pacific Islander," or opted to "self-identify" their race and wrote in descriptions such as "Turkish," "Central Asian," "Pakistani"

Encounters with Police

Frequency of Interaction. As shown in **Table 3.3**, almost half (46%) of respondents interacted with any police while attending Apple U; most (41%) interacted with police 1–3 times, with variation across racial and gender groups [χ^2(32, $N = 5225$) = 154.14, $p < 0.001$]. Fifty-seven percent of White TGGD students reported police contact, followed by URM cisgender men (55%), White cisgender men (52%), White cisgender women (49%), URM TGGD students (46%), URM cisgender women (43%), Asian cisgender men (36%), Asian cisgender women (33%), and Asian TGGD students (28%). Those who reported any contact also reported more instances of police contact. More than 10% of URM TGGD students (10.2%) experienced four or more contacts compared with 8.9% of White TGGD students, 6.8% of White cisgender men, 6.5% of URM cisgender men, 5.6% of White cisgender women, and 4.9% of URM cisgender women. The five most common types of reported police contact were casual conversation ($n = 888$), police responding to a noise complaint ($n = 598$), traffic stop ($n = 495$), interacting with an officer patrolling the campus by foot ($n = 361$), and "other" ($n = 341$).

Quality of Interaction. Among respondents who interacted with police while in college, 14.6% had negative interactions and 24% experienced unfair treatment. However, negative interaction rates varied across subgroups [χ^2(32, $N = 2353$) = 189.68, $p < 0.001$]. They ranged from 19.1% to 40% for URM and TGGD groups but from 7.7% to 16.2% for White and Asian cisgender students. Specifically, negative interactions were reported by 40% of Asian TGGD students, 36.4% of White TGGD students, 32% of URM TGGD students, 20.7% of URM cisgender men, and 19.1% of URM cisgender women compared with 16.2% of Asian cisgender women, 13.3% of White cisgender women, 12.3% of White cisgender men, and 7.7% of Asian cisgender men. Unfair treatment also differed by subgroup [χ^2(16, $N = 2315$) = 81.57, $p < 0.001$] and was reported by 33-56% of URM and TGGD students (56% of Asian TGGD students, 47% of URM TGGD students, 35% of both URM cisgender men and women, 33% of White TGGD students) but only 15-32% of White and Asian cisgender students (32% of Asian cisgender women, 20% of White cisgender men, 19% of White cisgender women, and 15% of Asian cisgender men).

Table 3.3 *Encounters with Police*

	Full Sample		White Cis Male		White Cis Female		White TGGD		Asian Cis Male		Asian Cis Female		Asian TGGD		URM Cis Male		URM Cis Female		URM TGGD		χ2
	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	
Interaction frequency																					154.14***
0	54	2930	48	455	51	1068	43	49	64	268	67	484	72	17	45	166	57	377	54	25	
1-3	41	2070	45	402	43	836	48	55	33	135	30	210	28	7	48	159	38	241	36	16	
4-6	3.9	189	5	42	4.3	80	8.1	10	2.6	11	1.9	12	0	0	3.6	10	3.7	22	4.9	2	
7-9	.54	29	.41	4	.75	14	.82	1	0	0	.40	3	0	0	1.1	3	.53	3	0	0	
10+	.86	38	1.4	12	.57	10	0	0	.34	1	.29	2	0	0	1.8	3	.71	5	5.3	3	
Interaction Quality																					189.68***
Very positive	15	328	20	97	11	103	5.7	4	25	40	9.7	24	0	0	16	33	8	24	0	0	
Positive	28	637	30	142	27	260	15	10	40	61	24	59	0	0	26	49	18	53	7.9	1	
Neutral	42	1042	37	170	48	456	43	29	27	38	50	119	60	4	37	65	54	146	60	12	
Negative	12	290	10	48	11	107	27	15	6.4	9	14	31	40	3	17	27	17	44	12	3	
Very negative	2.6	68	2.3	12	2.3	22	9.4	8	1.3	2	2.2	5	0	0	3.7	7	2.1	6	20	5	
Treated fairly																					81.57***
None of time	3.9	89	3.3	16	2	19	6.4	5	3.9	6	4	9	9.9	1	7.3	12	5.5	16	12	4	
Some of time	20	467	17	77	17	163	27	18	11	16	28	60	46	3	27	43	30	77	34	7	
All of the time	76	1770	80	372	81	748	67	43	85	123	68	159	44	3	65	125	65	180	53	10	
Academic Impact																					195.71***
Very positive	2	87	2.6	24	1	21	.75	1	3.4	15	5.5	4	0	0	2.7	9	1.7	10	0	0	
Positive	2.5	117	1.9	16	1.7	33	.45	1	6.4	25	4.1	30	0	0	1.2	4	.86	6	0	0	
Neutral	92	4761	93	846	94	1867	85	96	88	355	92	632	88	20	88	300	90	584	84	38	
Negative	3.3	176	2.1	22	2.2	43	9.9	12	1.3	6	3.3	24	12	3	6.5	19	6.4	40	14	6	
Very Negative	.64	31	.31	3	.67	12	3.5	4	.65	3	.28	2	0	0	1.2	3	.61	3	2.2	1	

Notes. Table values are weighted percentages and unweighted counts.

***indicates statistical significance (*p* < .0001)

Impacts on Academics. Most respondents (92%) stated that their thoughts and feelings about interaction or potential interaction with police while enrolled at Apple U did not affect their academic performance positively or negatively. However, a small proportion of students reported either positive or negative academic impacts. Again, these perspectives varied across subgroups [$\chi^2(32, N = 5143) = 195.71, p < 0.001$]. Reports of negative academic impacts ranged from 7.0% to 16% for URM and TGGD groups but only from 1.9% to 3.6% for White and Asian cisgender students. More precisely, adverse impacts were cited by 16% of URM TGGD students, 13% of White TGGD students, 12% of Asian TGGD students, 7.7% of URM cisgender men, and 7.0% of URM cisgender women compared with 3.6% of Asian cisgender women, 2.9% of White cisgender women, 2.4% of White cisgender men, and 1.9% of Asian cisgender men. This pattern was almost exactly reversed for positive impacts: the greatest percentage of Asian cisgender students mentioned positive impacts (though only 9.8% of males and 9.6% of females did so), followed by 4.5% of White cisgender men, 3.9% of URM cisgender men, 2.7% of White cisgender women, 2.6% of URM cisgender women, and 1.2% of White TGGD students. No Asian or URM TGGD students reported positive academic impacts.

Attitudes Toward Police

Table 3.4 presents logistic regression results for variations in students' attitudes toward police presence on campus across groups. Each racial/gender subgroup was compared to White cisgender men.

Sense of Safety. Overall, 70% of respondents reported that a police presence on campus made them feel safe. In particular, most Asian cisgender men (88%), White cisgender men (77%), and White cisgender women (75%) made this statement, with Asian cisgender men having the greatest odds of doing so (OR = 2.36 [1.68, 3.31]). By contrast, compared to White cisgender men, all other racial and gender groups demonstrated lower odds of feeling safe from a police presence: only 25% of URM TGGD students (OR = 0.11 [0.05, 0.25]), 31% of White TGGD students (OR = 0.15 [0.10, 0.24]), 44% of Asian TGGD students (OR = 0.27 [0.12, 0.62]), 57% of URM cisgender women (OR = 0.45 [0.36, 0.57]), 66% of White cisgender women (OR = 0.66 [0.55, 0.78]), and 67% of URM cisgender men (OR = 0.67 [0.51, 0.89]).

Table 3.4 *Attitudes toward Police: Results of Logistic Regression*

	White Cis Males		White Cis Females		White TGGD		Asian Cis Males		Asian Cis Females		Asian TGGD		URM Cis Male		URM Cis Female		URM TGGD	
	%	OR (CI)	%	OR (CI)	%	OR (CI)	%	OR (CI)	%	OR (CI)	%	OR (CI)	%	OR (CI)	%	OR (CI)	%	OR (CI)
Police presence on campus makes me feel safe	75		66	**0.66 (.55, .78)**	31	**0.15 (.10, .24)**	88	**2.36 (1.68, 3.31)**	77	1.10 (.87, 1.39)	44	**0.27 (.12, .62)**	67	**0.67 (.51, .89)**	57	**0.45 (.36, .57)**	25	**0.11 (.05, .25)**
Armed police on campus is good for my mental health	50		28	**0.38 (.32, .45)**	10	**0.11 (.06, .23)**	50	0.99 (.78, 1.25)	29	**0.40 (.33, .50)**	13	**0.15 (.04, .51)**	43	**0.73 (.56, .96)**	23	**0.30 (.24, .37)**	11	**0.12 (.04, .43)**
Unarmed police on campus is good for mental health	62		62	0.99 (.84, 1.17)	46	**0.54 (.36, .81)**	70	**1.48 (1.14, 1.92)**	71	**1.55 (1.24, 1.92)**	52	0.67 (.29, 1.53)	62	1.01 (.77, 1.32)	58	0.86 (.70, 1.07)	49	0.60 (.31, 1.14)
Comfortable with police responding in a mental health crisis	34		21	**0.53 (.44, .63)**	7.3	**0.15 (.07, .35)**	40	**1.29 (1.01, 1.66)**	23	**0.58 (.46, .72)**	4.6	**0.09 (.01, .71)**	29	0.81 (.61, 1.08)	17	**0.41 (.32, .52)**	8.5	**0.18 (.05, .63)**

Notes. Boldface indicates statistical significance ($p < 0.05$). Table values are weighted percentages and unadjusted ORs with 95% CIs in parentheses.

Comparisons are between the specified gender and racial/ethnic group and White cisgender men.

Mental Health. Just slightly more than one-third (37%) of respondents overall considered an armed police presence on campus to be good for their mental health. White cisgender and Asian cisgender men had the highest odds of agreeing with this statement, but only 50% did so. All other student populations had lower odds of agreeing that an armed police presence was good for their mental health, with merely 10% of White TGGD students (OR = 0.11 [0.06, 0.23]), 11% of URM TGGD students (OR = 0.12 [0.04, 0.43]), 13% of Asian TGGD students (OR = 0.15 [0.04, 0.51]), 23% of URM cisgender women (OR = 0.30 [0.24, 0.37]), 28% of White cisgender women (OR = 0.38 [0.32, 0.45]), 29% of Asian cisgender women (OR = 0.40 [0.33, 0.50]), and 43% of URM cisgender men (OR = 0.73 [0.56, 0.96]) agreeing.

Nearly two-thirds of respondents concurred that an unarmed police presence on campus was good for their mental health (63%). Several differences emerged across race and gender identity groups. The following proportions of respondents agreed: Asian cisgender women (71%), Asian cisgender men (70%), White cisgender men (62%), URM cisgender men (62%), White cisgender women (62%), URM cisgender women (58%), Asian TGGD students (52%), URM TGGD students (49%), and White TGGD students (46%). Compared to White cisgender men, Asian cisgender women (OR = 1.55 [1.24, 1.92]) and Asian cisgender men (OR = 1.48 [1.14, 1.92]) had greater odds of agreeing that an unarmed police presence was good for their mental health. Compared to White cisgender men, only White TGGD students had significantly reduced odds of agreeing with this statement (OR = 0.54 [0.36, 0.81].

Although police are often the first responders to students experiencing mental health crises at Apple U, the majority (73%) of respondents reported being uncomfortable with police responding if they were to experience a mental health crisis. Compared to White cisgender men, Asian cisgender men had higher odds of reporting being comfortable with police responding (OR = 1.29 [1.01, 1.66]). In comparison to White cisgender men (34% comfortable), all other groups except URM cisgender men (30% comfortable) had a significantly reduced odds of being comfortable with police responding if they were to experience a mental health crisis. Only 4.6% of Asian TGGD students (OR = 0.09 [0.01, 0.71]), 7.3% of White TGGD students (OR = 0.15 [0.07, 0.35]), 8.5% of URM TGGD students (OR = 0.18 [0.05, 0.63]), 17% of URM cisgender women (OR = 0.41 [0.32, 0.52]), 21% of White cisgender women (OR = 0.53 [0.44, 0.63]), and 23% of Asian cisgender women (OR = 0.58 [0.46, 0.72]) reported being comfortable with this scenario.

Concerns About Campus Police

Respondents reported several concerns about campus police at Apple U, as detailed in
Table 3.5. Generally, 59% of respondents indicated that one or more concerns were "a problem"
or "a big problem" at Apple U as follows: lack of training (44%), racial profiling (39%), lack of
oversight (33%), carrying weapons (32%), too much funding/overspending (32%), and "other"
(12%). For each area of concern, a substantial proportion of students reported not knowing
enough to say whether the issue was a problem at Apple U: lack of training (28%), racial
profiling (28%), lack of oversight (37%), carrying weapons (23%), too much
funding/overspending (36%), and "other" (68%). Others reported that the concern "might be a
problem" (4.1–24% across all issues). Few respondents indicated that concerns were "not a
problem" at Apple U: carrying weapons (21%), "other" (16%), overspending (14%), racial
profiling (9%), oversight (8.8%), and training (8.1%).

Significant differences were observed across racial and gender groups in each concern
category (see **Table 3.5**). Although not statistically examined, a trend manifested for gender:
across every concern and racial group, the greatest proportion of TGGD students generally
reported the concern as a problem (62–73%) followed by cisgender women (31–58%) and
cisgender men (19–42%). Likewise, within gender groups, URM students typically indicated the
concern as a problem at higher rates than White and Asian students. For example, 73% of URM
TGGD students, 66% of Asian TGGD students, 63% of White TGGD students, 58% of URM
cisgender women, 52% of White cisgender women, 51% of Asian cisgender women, 47% of
URM cisgender men, 33% of Asian cisgender men, and 31% of White cisgender men cited racial
profiling as a problem. Training was the top concern among every racial and gender group; the
proportion of respondents stating it was a problem ranged from 33% of Asian cisgender men to
73% of URM TGGD students. White TGGD students were an exception—carrying weapons was
their top concern about campus police (74%).

Table 3.5 *Concerns about Campus Police*

	Full Sample		White Cis Males		White Cis Females		White TGGD		Asian Cis Males		Asian Cis Females		Asian TGGD		URM Cis Male		URM Cis Female		URM TGGD		χ2
	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	
Racial profiling																					432.98***
Not a problem	9	372	14	128	4.9	93	2	1	18	70	3.1	24	4.6	1	10	32	3	20	0	0	
Might be a problem	23	1121	26	235	19	363	12	13	30	116	23	161	21	4	22	77	22	139	14	6	
This is a problem	19	1006	16	144	23	444	23	25	14	55	20	137	13	3	19	62	20	126	14	7	
This is a big problem	20	1190	10	103	24	488	43	53	11	46	24	170	41	10	23	78	32	212	50	23	
I don't know enough	28	1459	33	307	29	558	20	21	27	114	29	204	21	5	26	92	22	143	21	9	
Training																					473.57***
Not a problem	8.1	337	15	134	4.5	85	2	1	13	50	2.5	19	0	0	8.2	26	2.3	16	3.4	2	
Might be a problem	19	926	23	212	16	308	9.8	11	28	109	17	120	4.3	1	18	61	15	96	10	5	
This is a problem	17	893	17	148	20	301	15	16	16	65	18	123	13	3	18	61	13	87	9.8	3	
This is a big problem	27	1539	14	132	32	623	48	59	17	71	33	226	53	12	29	101	45	279	63	29	
I don't know enough	28	1448	31	290	28	547	24	26	26	107	30	208	29	7	27	91	25	161	14	6	
Oversight																					339.77***
Not a problem	8.8	367	15	137	5.4	101	3.7	3	16	59	2.4	18	0	0	7.1	23	3.5	23	2.2	1	
Might be a problem	21	1018	24	225	18	346	17	17	28	109	20	137	21	4	19	63	17	108	11	4	
This is a problem	15	786	13	111	16	304	13	17	16	64	19	129	13	3	15	49	15	97	18	7	
This is a big problem	18	976	12	112	19	369	36	43	11	45	20	135	28	7	20	72	26	167	42	20	
I don't know enough	37	1977	36	328	42	817	30	33	30	122	39	275	38	9	38	132	38	242	27	13	
Weapons																					606.13***
Not a problem	21	883	36	317	13	248	6.2	6	30	116	6.7	48	0	0	24	79	10	64	0	0	
Might be a problem	24	1182	23	213	22	425	6.1	7	28	113	27	186	28	6	25	84	22	138	12	5	
This is a problem	17	938	14	124	20	380	26	26	11	46	20	137	13	3	18	60	22	142	31	13	
This is a big problem	15	879	8.1	82	18	368	48	58	8.2	34	17	119	33	8	12	44	22	144	42	20	
I don't know enough	23	1257	19	179	27	521	14	16	22	94	30	207	25	6	21	72	24	150	15	7	
Overspending																					442.12***
Not a problem	14	626	24	215	9.1	170	4.6	4	23	89	6.8	49	0	0	15	51	6.6	45	0	0	
Might be a problem	18	881	20	177	16	304	8.8	8	22	87	21	143	23	5	17	58	15	95	6.6	2	
This is a problem	14	714	11	102	16	303	12	15	14	54	14	97	13	3	11	39	14	89	16	6	
This is a big problem	18	992	12	116	20	398	50	59	7.4	30	17	112	22	5	20	70	27	170	56	26	
I don't know enough	36	1914	33	306	39	763	25	27	34	141	41	293	42	10	36	122	37	234	21	11	
Other																					79.90***
Not a problem	16	132	21	42	11	34	7.4	2	24	19	9	12	0	0	18	14	8	9	0	0	
Might be a problem	4.1	34	4.8	10	3.2	10	0	0	5.6	4	3.5	4	0	0	6.2	4	1.8	2	0	0	
This is a problem	3.9	39	1.2	4	4.1	13	0	0	5.3	5	6.1	8	0	0	5.5	3	5.6	6	0	0	
This is a big problem	8	82	6.4	13	5.8	21	37	10	6.4	6	4.4	6	0	0	13	11	10	12	28	2	
I don't know enough	68	699	66	133	76	249	56	13	59	57	77	100	100	2	57	46	75	91	72	5	

Notes. Table values are weighted percentages and unweighted counts.

***indicates statistical significance (*p* < .0001)

Perspectives on Policy Solutions

Respondents expressed considerable support for changes to policy and practices pertaining to campus public safety at Apple U (see **Table 3.6**). Overall, respondents supported (i.e., answers of "support" or "somewhat support") the following initiatives: increased training for campus police officers (e.g., anti-racism training, mental health training, unconscious bias training) (85% of respondents); increased oversight of campus police (69%); disarming police officers on campus (52%); redirecting funds from policing into community resources (e.g., counseling services, multicultural student affairs/services) (70%); expanding the use of nonsworn, unarmed staff to respond to safety, security, and mental health concerns and decreasing use of police on campus (64%); expanding the use of nonsworn, unarmed staff to respond to safety, security, and mental health concerns and discontinuing use of police on campus (i.e., abolition) (40%); and "other" (changes that respondents wrote in; 15%). Compared with the proportion of respondents (23–68%) indicating that they "didn't know enough to say" whether specific concerns were problems at Apple U (see **Table 3.5**), fewer respondents (5.1–15%) stated that they did not know whether they supported the listed policy changes.

Support for each policy change differed significantly across subgroups (see **Table 3.6**). The variation in support across gender and race mirrored that of problem endorsement. Again, while not statistically tested, the largest percentage of TGGD students generally expressed support for policy changes followed by cisgender women and cisgender men. Overall, URM students indicated support for policy changes at greater rates than White and Asian students. For example, the following proportions of respondents expressed support for disarming campus police: URM TGGD students (91%), White TGGD students (85%), Asian TGGD students (78%), URM cisgender women (67%), White cisgender women (63%), Asian cisgender women (59%), URM cisgender men (49%), White cisgender men (39%), and Asian cisgender men (34%). Respondents demonstrated the most support for increased training, except for White and URM TGGD students who displayed the most support for redirecting funds into community resources (92% and 96% of respondents, respectively).

Table 3.6 *Perspectives on Policy Solutions*

	Full Sample		White Cis Males		White Cis Females		White TGGD		Asian Cis Males		Asian Cis Females		Asian TGGD		URM Cis Male		URM Cis Female		URM TGGD		χ2
	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	
Increase Training																					342.83***
Support	73	3908	63	585	83	1627	68	79	57	234	79	547	77	17	76	258	80	509	74	31	
Somewhat support	12	581	16	145	8.5	173	15	17	19	74	8.8	64	4.2	1	10	34	10	66	6.3	4	
Neutral	6.6	293	8	74	3.6	69	5.9	8	13	51	5.1	38	4.8	1	7.9	22	3.9	24	7.9	4	
Do not support	3.3	151	6.6	59	1.6	35	10	9	2.4	9	1.1	7	0	0	2.8	12	1.8	13	9.4	5	
Don't know	5.1	249	6.4	59	3.3	64	.9	1	8.9	36	5.9	44	14	3	2.9	11	4.3	29	1.9	1	
Increase Oversight																					180.77***
Support	52	2757	48	445	57	1122	66	74	40	167	50	344	68	16	54	190	56	352	71	31	
Somewhat support	17	830	18	168	15	291	15	18	24	95	15	107	13	2	15	51	15	92	7.9	3	
Neutral	13	579	16	141	8.3	159	8.6	9	18	71	13	94	4.8	1	16	47	8.1	51	5.9	4	
Do not support	4.2	204	6.5	57	3.5	67	1.4	2	4.1	15	2.6	18	0	0	2.2	7	5	33	5.3	2	
Don't know	15	788	12	107	17	320	9.6	11	14	55	19	133	14	3	13	42	16	108	10	5	
Disarm																					714.20***
Support	34	1971	24	233	44	871	75	86	18	74	35	239	67	15	30	102	48	309	71	34	
Somewhat support	18	944	15	140	19	366	9.7	11	16	61	24	166	11	3	19	63	19	121	20	7	
Neutral	16	744	14	127	11	211	4.6	5	30	121	17	120	13	3	22	71	14	80	4.8	2	
Do not support	22	971	39	345	16	307	8.3	8	24	94	9.2	64	0	0	25	81	10	66	2.5	1	
Don't know	9.9	533	8.5	76	11	207	2	3	13	52	15	108	8.2	2	5.3	19	9.2	62	1.8	1	
Redirect Funds to Community Resources																					516.55***
Support	57	3149	46	429	68	1350	85	97	34	139	58	398	71	16	58	198	72	463	96	43	
Somewhat support	13	648	16	144	11	226	6.5	8	18	71	14	98	0	0	12	39	9.5	58	0	0	
Neutral	11	502	13	116	6.3	120	1.6	2	21	88	11	79	7.1	2	13	44	8.1	49	1.6	1	
Do not support	9.2	402	17	152	6.1	118	4.6	4	12	48	2.9	22	0	0	9.2	32	3.1	20	2.5	1	
Don't know	9.3	475	8.9	80	7.8	152	2.4	3	14	58	14	102	21	5	7.4	24	7.5	49	0	0	
Expand non-sworn, unarmed staff & *decrease* police																					369.72***
Support	44	2426	35	335	54	1065	72	83	28	113	41	283	63	15	45	155	53	340	57	26	
Somewhat support	20	1008	22	197	19	369	14	18	18	75	23	157	11	3	15	53	19	123	16	8	
Neutral	15	666	15	141	10	190	5.4	5	25	103	14	98	4.7	1	19	59	10	62	6.5	3	
Do not support	10	467	17	151	7.6	146	4.5	4	14	55	4.6	32	0	0	10	34	6.3	40	5.6	2	
Don't know	12	585	11	91	9.8	187	4.5	4	14	56	17	126	22	4	11	34	11	70	15	5	
Abolition (expand non-sworn, unarmed staff & *discontinue* police)																					375.75***
Support	26	1448	18	174	29	585	56	69	19	75	25	173	47	10	27	94	36	234	63	28	
Somewhat support	14	736	12	107	16	317	16	15	12	47	14	99	11	3	11	37	17	106	5.1	3	
Neutral	16	764	13	126	13	246	12	13	24	95	18	128	8.4	2	19	60	13	85	8.2	4	
Do not support	32	1544	46	414	29	574	12	12	34	137	22	154	16	4	32	110	21	127	13	5	
Don't know	12	654	11	98	12	233	4.3	5	12	48	20	143	17	4	11	34	12	80	11	5	
Other																					71.43***
Support	11	70	11	16	9.6	19	65	5	11	11	2.3	2	0	0	15	7	10	8	41	2	
Somewhat support	4.3	32	3.1	4	4.8	9	0	0	3.4	2	7.8	9	0	0	1.4	1	7.8	6	0	0	
Neutral	17	105	14	20	12	25	0	0	23	18	15	16	0	0	29	13	16	13	0	0	
Do not support	9.8	57	13	17	7.4	16	8.6	1	14	10	5.2	5	0	0	8.7	5	5.3	3	0	0	
Don't know	58	416	59	83	66	130	27	3	49	45	69	73	1	2	46	23	60	49	59	5	

Notes. Table values are weighted percentages and unweighted counts.

 ***indicates statistical significance (*p* < .0001)

Discussion

This study reveals that nearly half of all respondents reported interacting with police while attending Apple U. Among them, 15% reported negative interactions and 24% reported unfair treatment. Notably, the frequency, quality, and impacts of these interactions with police varied significantly across racial and gender groups, with higher prevalence rates of negative and unfair encounters and adverse academic impacts among gender and racial minorities. For instance, among URM TGGD students who interacted with police while attending Apple U, 32% experienced negative interactions, 46% experienced unfair treatment, and 16% reported adverse academic impacts from actual or potential police interaction. There are documented associations between personal experiences of unfair treatment by police and adverse mental health outcomes, including depression (e.g., (English et al., 2017)), anxiety (e.g., (Geller et al., 2014), post-traumatic stress disorder (e.g., (Geller et al., 2014), and suicidal ideation and attempts (e.g., (Oh et al., 2017). Thus, the high reported rates of unfair treatment across all students and particularly gender and racial minorities are especially concerning (Dennison & Finkeldey, 2021).

Attitudes about campus police presence were mixed and differed broadly across student groups. While most respondents stated that a police presence on campus made them feel safe, less than half agreed that an armed police presence was good for their mental health. Most (73%) felt uncomfortable with police responding to them during a mental health crisis. According to logistic regression results, URM and TGGD students were less likely than White cisgender men to report benefits of police presence to their safety and mental health and comfort with police response in crises. Across all safety and mental health attitude variables, TGGD students consistently had the lowest odds of reporting benefits of police presence compared to White cisgender men. A race and gender pattern also appeared regarding concerns about campus police, with 32–44% of all respondents endorsing concerns as problems but 60–73% of URM TGGD students doing so.

Support for police-related policy changes at Apple U was widespread, ranging from 85% of respondents supporting increased training to 40% supporting abolition (e.g., expanding use of nonsworn, unarmed staff to respond to safety, security, and mental health concerns and discontinuing use of police on campus). Race and gender trends echoed those involving

respondents' attitudes and concerns. Generally, TGGD groups—regardless of race—endorsed policy changes most strongly apart from the increased training endorsement among cisgender women. A larger proportion of URM than White and Asian students expressed support for change within gender categories, with URM TGGD students expressing the greatest support for change overall (e.g., 96% for redirecting funds into community resources and 91% for disarming the police).

This population-level research suggests that policing inequitably shapes students' college experiences, with variation in encounters, attitudes, concerns, and policy support at the intersection of race and gender. Observed variation in contact frequency is important to consider given evidence that more frequent contact (whether vicarious or direct) appears to be a "consistent predictor of stress associated with all types of police contact" for college students (Landers et al., 2011). Future research should examine vicarious contact as well as direct contact as was done in this study and further explore the mechanisms by which accumulated police contact translates into measurable stress among students.

Several overall patterns also merit discussion and further research. Across experiences, attitudes, concerns, and policy perspectives, Asian cisgender men and women had fewer and more positive interactions with, more positive attitudes toward, and fewer concerns about campus police than their URM and sometimes even White peers. One of the few prior studies on police and college students used a single racial minority category, grouping Asian, Black, Hispanic, and other non-White students together. The present study suggests that grouping these populations likely masks inequities faced by URM students and underlines the importance of disaggregating race in future work. Research from outside of higher education has documented differences between the police experiences of Black and Latinx populations (Cheurprakobkit, 2000; Dennison & Finkeldey, 2021; Solis, Portillos, & Brunson, 2009; Weitzer & Tuch, 2004). Scholars should therefore scrutinize differences between Black, Latinx, Arab, and multiracial students and others in the future.

Another consistent pattern was that TGGD students across all race groups more frequently reported negative police interactions, adverse academic impacts, concerns about campus police, and the highest levels of support for policy changes. Scarce empirical research in any setting has considered TGGD individuals' police experiences (Dwyer, 2011). This study underscores the need to attend to the police experiences of this population. It is especially worth

exploring on college campuses, where TGGD students may be the most likely group to experience mental health crises due to high rates of suicidality in this population (Lipson, Raifman, et al., 2019). However, results from this study suggest that they may be least likely to be comfortable with the police responding. College leaders interested in reducing mental health inequities for TGGD students should consider the policy changes these students support (abolition; disarming police) and nonpolice response to mental health crises on campus. Future work should not only include TGGD students but also explore the variation in campus police experiences and attitudes within this population. Experiences and perspectives may vary across transmasculine, transfeminine, nonbinary, and genderqueer students and based on gender presentation. Future research is also needed to further investigate the impact of race and racism in shaping TGGD students' police encounters and perspectives. Interpersonal and structural racism and cissexism may interact, such that Black and Latinx TGGD students in particular face disproportionate surveillance and more negative interactions. Future research should further unpack students' experiences at the intersection of race and gender identity.

Study findings suggest that further research, especially with diverse and representative datasets, is required to more clearly delineate gender differences between cisgender men and females. Research with male and female college students has identified unique concerns, particularly for Black men; this study's results often pointed to similar experiences, attitudes, concerns, and policy support across cisgender men and cisgender women. Findings also revealed greater concerns and policy support among cisgender women in many cases. White cisgender men and women reported negative and unfair interactions and adverse academic impacts at similar rates. Notably, White cisgender women had a reduced odds of reporting positive attitudes toward police presence for safety, mental health, and crisis response compared to White cisgender men. Conversely, more White cisgender women than men expressed concerns about campus police and support for policy change. Similar gender patterns were observed for URM cisgender men and women. Previous findings might have been skewed by binary conceptualizations of gender. Alternatively, gender may differentially shape police encounters for Black, Latinx, and Arab students such that different patterns may have emerged between cisgender men and females if this study had specifically examined Black students, with whom earlier work occurred. Subsequent studies should examine gender differences across each underrepresented racial group. Regardless, this research substantiates documented adverse

impacts of policing on women outside of higher education by activists and scholars and calls for more attention to women's experiences with police (Crenshaw, Ritchie, Anspach, Gilmer, & Harris, 2015; Fedina et al., 2018; Ritchie, 2017; Sewell et al., 2020).

These findings also extend qualitative research addressing the negative implications of campus policing for Black students' mental health (Jenkins et al., 2020; Smith et al., 2007). In the current sample, most students did not perceive campus policing, in its current armed form, as good for their mental health. Most were also uncomfortable with police responding to them in a mental health crisis. These patterns lend support to scholars suggesting that law enforcement encounters have been overlooked as a "significant and ongoing source of potential mental health risk" for college students (Landers et al., 2011). College administrators, policymakers, and mental health advocates should be aware that almost two-thirds of college students appear not to see armed police on campus as good for their mental health. Additional work is needed to further investigate the impact of campus policing on students' mental health. How different student populations interpret what it means for policing to be or not be "good" for one's mental health can be explored in greater depth. Moreover, researchers should conduct correlational and causal studies to examine how campus police presence and positive and negative encounters with police while in college shape a range of psychosocial outcomes. Outcome measures could include clinically validated mental health screens assessing symptoms of mental health disorders; scales assessing belonging, flourishing, and wellbeing; and biological markers of stress.

In the meantime, given that URM and TGGD students—groups that face significant mental health inequities on campus (Lipson et al., 2018; Lipson, Raifman, et al., 2019)—are most likely to disagree that campus police are good for their mental health and report discomfort with police responding to them in a mental health crisis, changes to colleges' investment in law enforcement and policing policies may offer an institutional mechanism to enhance mental health equity. Most students in this study's sample would support changes such as redirecting funds from policing into community resources and expanding the use of nonsworn, unarmed staff to respond to mental health concerns—a strategy with mounting evidence of effectiveness outside of higher education (Beck, Reuland, & Pope, 2020; Butler & Sheriff, 2020; Compton et al., 2008; Kane, Evans, & Shokraneh, 2018; Morabito et al., 2012; Morabito, Watson, & Draine, 2013; Scott, 2000; Watson & Fulambarker, 2012; Watson et al., 2010). An increasing number of cities and higher education institutions are developing programs to send medics, social workers,

104

crisis responders, and/or peer mental health paraprofessionals—either together with or in place of police officers—to respond to individuals in mental distress (Lanser et al., 2021; Margolis & Shtull, 2012; Nickeas, 2021; Segal, 2016; Waters, 2021; Weissman, 2020b). These response teams are "extensively trained in de-escalation, have the appropriate training to assess both risk and treatment needs" and are better equipped than law enforcement to connect individuals with mental health treatment needs beyond inpatient hospitalization to community supports (Lanser et al., 2021, p. 2). The present study suggests that most students would support such actions on the part of colleges and universities and that these changes would carry benefits for TGGD and URM students.

Limitations, Strengths, and Conclusions

This study is not without limitations. The sample was drawn from a single Midwestern university; thus, the generalizability of findings is unclear. Experiences with and attitudes toward campus police and college law enforcement policy could vary between urban and rural colleges, schools in different geographic regions, or based on other institutional characteristics. The response rate, while typical for online surveys (Eisenberg, Gollust, Golberstein, & Hefner, 2007), was low, raising further questions about generalizability. However, this research involved a large, random sample of Apple U's student body, and survey weighting was applied to all prevalence rates to adjust for differences between responders and nonresponders. Results therefore offer the most representative understanding of a full student body's experiences with and perspectives on campus police to date. Future multi-institution research will allow for studying how institutional characteristics shape students' experiences and perspectives as well as how variation in institutions' policing investments and practices shape student outcomes.

It is worth noting that this study may underestimate the typical prevalence of police encounters among college students. Students were asked to report on their police encounters while a student at Apple U. For all currently enrolled students, this period overlapped with the COVID-19 pandemic. As a result, many students were engaged in remote learning from off-campus for several months and nationwide "stay at home" orders may have reduced exposure to and contact with police. Representative prevalence estimates of police contact, such as were collected through this study, must be gathered over time to understand how remote learning and "stay at home" orders impact college student police encounters.

As one of the first quantitative studies of students' encounters with and views on campus policing, no instruments that have been psychometrically evaluated with college populations were available to use in the survey design. Future work should assess the psychometric properties of measures used in this research, paying particular attention to reliability and validity across racial and gender groups. This study presents simple descriptive analyses of measures assessing students' subjective views on campus police experiences and impacts. Subsequent studies could integrate objective measures of police contact and potential outcomes, such as from institutional records on police activity and students' academic outcomes. Research is also needed to examine the predictors of students' police experiences, attitudes, and concerns as well as the academic and mental health outcomes associated with frequent, negative, and unfair contact with campus police. Much remains to be understood about what shapes students' encounters with police and the impacts of campus police presence. Direct and vicarious prior experience with police likely plays a role (Campbell & Valera, 2020; Dennison & Finkeldey, 2021; Turney, 2020; Weitzer & Tuch, 2004). After all, 54% of students in this study reported no police encounters while in college but still endorsed perspectives on and concerns about campus police presence. Were these shaped by peer experiences at Apple U or while growing up? Viral documentation of police violence occurring nationally? Personal encounters with police prior to college? Mixed methods research can examine these possibilities and others. An alternative explanation may lie in existing research that identifies campus policing as an interpersonal racial stressor—impacting students and shaping their perspectives through direct encounters—as well as a structural stressor that shapes the campus racial climate and impacts students irrespective of direct contact (Landers et al., 2011; Mills, 2020; Solorzano et al., 2000).

Despite some limitations and avenues for future work, this research provides an initial quantitative, representative estimate of the prevalence of police encounters across a diverse student body. It is the first study, to my knowledge, on campus police to describe the experiences of TGGD students. Findings reveal that this population commonly reports negative encounters, harmful impacts to safety and mental health, and greater concerns than their cisgender peers. This work uniquely considers race and gender collectively, shedding light on how marginalization at the intersection of racism and cissexism may increase students' risks with campus police. I present the first available data on students' perspectives on public safety policy changes being considered by institutions across the country. Results reflect overwhelming

student support for revision to current practices, including majority support for redirecting funds from policing to community resources (70%), expanding the use of non-sworn, unarmed staff to respond to safety, security, and mental health concerns (64%), and disarming campus police (52%); and substantial support (40%) for a major change: abolishing campus policing. This study also showcases the impacts of campus policing on academics (neutral for most but negative for as many as one-sixth of URM and TGGD students) and mental health (not positive for most in its current form but positive in an unarmed form) and paves the way for more formal evaluations of how institutional investment in campus policing shapes the range of student outcomes that these agencies claim.

CHAPTER 4: Protective Policies at Colleges and Universities and Psychosocial Outcomes Among Transgender and Gender Diverse College Students

Introduction

Transgender and gender diverse (TGGD) college students—students whose gender identity or expression differs from their assigned sex at birth or does not fit within the male−female binary—face some of the most significant psychosocial inequities on college campuses (Hendricks & Testa, 2012; Lipson, Raifman, et al., 2019). Each year, 35% of TGGD students contemplate suicide, compared to 10% of cisgender students (Lipson, Raifman, et al., 2019; Oswalt & Lederer, 2017). TGGD students experience more mental health problems than their cisgender peers and a reduced sense of belonging at school (Beemyn, Curtis, & Davis, 2005; Bilodeau, 2007; Dugan, Kusel, & Simounet, 2012; Lipson, Raifman, et al., 2019; Oswalt & Lederer, 2017; Parr, 2020; Robinson & Espelage, 2011). Sense of belonging is a widely examined indicator of psychosocial wellbeing in the education literature, known to be shaped by school practices and climate (Goldberg et al., 2018; Mounts, 2004; O'Meara, Griffin, Kuvaeva, Nyunt, & Robinson, 2017; Ribera, Miller, & Dumford, 2017; Strayhorn, 2012; Vaccaro & Newman, 2017) and to impact mental health and academic outcomes (Bensimon, 2007; Hausmann, Schofield, & Woods, 2007; Hausmann et al., 2009; Osterman, 2000; Pittman & Richmond, 2008; Shochet et al., 2006; Walton & Cohen, 2011).

Psychosocial disparities faced by TGGD populations, including college students, are attributed to minority stressors. These are excess stressors "individuals from stigmatized social categories are exposed as a result of their social, often a minority, position" (Meyer, 2003, p.675). They are pervasive for TGGD students in our cissexist, transphobic U.S. society and higher education system (Bilodeau, 2007; Messman & Leslie, 2019; Renn, 2010). Minority stressors operate across all levels of the socioecological model in the form of anti-transgender stigma and result in adverse health outcomes among TGGD populations (Hendricks & Testa, 2012; White Hughto et al., 2015). The gender minority stress model (Hendricks & Testa, 2012) describes interpersonal minority stressors, such as discrimination, victimization, and bullying

due to being a TGGD individual, which may result from lacking basic legal protections in many states and institutions (Movement Advancement Project, 2017). Lack of legal protections and anti-transgender legislation are forms of structural stigma (White Hughto et al., 2015). In 2021 there was an extraordinary attack on transgender rights, primarily targeting children and young adults, with more anti-transgender bills proposed by state lawmakers than any year previously (Levin, 2021).

Research to date has primarily focused on individual and interpersonal forms of stigma and intervention but structural stigma and structural interventions, which involve institutional policies, practices, and norms, are important and understudied factors shaping TGGD health (National Academies of Sciences, Engineering, 2020; Pitcher et al., 2018; White Hughto et al., 2015). Off campus, growing evidence indicates that protective state policies (e.g. extending rights or prohibiting discrimination) can improve mental health for TGGD adults and sexual minorities and thereby improve educational outcomes and potentially save lives (Gleason et al., 2016; Hatzenbuehler & Keyes, 2013; Raifman et al., 2018). Given hostile state contexts and high levels of anti-transgender stigma and violence in schools (Robinson & Espelage, 2011; Seelman et al., 2017; Toomey et al., 2012; Woodford, Kulick, et al., 2014), policies and practices at colleges and universities to reduce anti-transgender stigma and provide equal opportunities for TGGD college students may be important for improving TGGD student psychosocial outcomes.

Institutional Policies for Improving Psychosocial Outcomes

Based on the advocacy of TGGD students themselves and evidence from settings outside of higher education, three institutional policies and practices increasingly implemented by colleges and universities stand out as holding potential for improving psychosocial outcomes through reducing suicidal ideation and enhancing sense of belonging among TGGD students. In campus activism and qualitative research, TGGD students stress the importance of schools: 1) making efforts to protect students from discrimination through expanding nondiscrimination policies to include gender identity and expression, 2) allowing students to identify their name and pronouns on campus records, and 3) providing access to gender inclusive restrooms (Beemyn et al., 2005; Beemyn, 2005; Beemyn, 2019; Goldberg et al., 2018, 2019; Goldberg, Smith, & Beemyn, 2020; Pitcher et al., 2018; Sausa, 2005; Seelman, 2014a). For example, in a mixed-methods study, 507 TGGD college students were asked about the perceived importance of 17 trans-inclusive policies; they identified gender-inclusive restrooms, nondiscrimination

policies that are inclusive of gender identity, and the ability to change one's name and indicate pronouns on campus records without legal name change as the most valued supports (Goldberg et al., 2018). These same policies were stressed as important in other qualitative studies with with nonbinary (Beemyn et al., 2005; Beemyn, 2005), transgender (Seelman, 2014a), and TGGD graduate (Goldberg et al., 2019) students. In their own words (excerpted from Goldberg et al., 2018), students shared:

> "I want a school-wide policy that has ZERO tolerance for not only outright discrimination, but for repeatedly failing to recognize students'/faculty's/staff's gender, pronouns, and preferred name." -White transgender man

> "I want name changes to be on records without requiring legal documents…needing to explain your name and pronouns to every new professor, and dreading knowing that they'll probably read your birth name out loud to the class, is extremely stressful and miserable and embarrassing." -Nonbinary student of color

> "We need gender neutral bathrooms across campus in every single building, and badly." -Genderfluid student of color

Inclusive nondiscrimination policies hold potential for reducing bullying, microaggressions, and violence in schools, which interferes with belonging and increases suicidal thoughts (Kosciw, Greytak, & Diaz, 2009; Nadal, Rivera, et al., 2010; Nadal, Skolnik, & Wong, 2012; Russell et al., 2014; Seelman et al., 2017; Stolzenberg & Hughes, 2017). Opportunities to change names and indicate pronouns may help reduce the extent to which TGGD college students are "misgendered, outed, and invalidated by faculty members throughout their academic day" (Knutson et al., 2021, p. 7; Matsuno, 2019). Gender inclusive restrooms may help reduce incidents of harassment as well as daily anxiety among TGGD students about their safety in school facilities (Goldberg et al., 2018; Seelman, 2016; Weinhardt et al., 2017; Woodford, Joslin, Pitcher, & Renn, 2017).

Research has not yet measured how these school policies shape disparities in psychosocial outcomes between TGGD and cisgender college students (National Academies of Sciences, Engineering, 2020; Pitcher et al., 2018; Woodford et al., 2017). But, evidence from other settings and populations suggests that the policies hold promise for reducing suicidal ideation and enhancing sense of belonging among TGGD college students (Hatzenbuehler & Keyes, 2013; Kull et al., 2016; National Academies of Sciences, Engineering, 2020). For

example, nondiscrimination policies at institutions of higher education inclusive of gender identity (in addition to sexual orientation) were found to be directly associated with reduced discrimination experiences among sexual minority students, which was associated with less psychological distress (Woodford et al., 2018). Gleason and colleagues (2016) found that living in states with nondiscrimination laws that cover gender minorities was associated with lower rates of perceived stigma at the community level and, indirectly, reduced rates of discrimination, victimization, psychological distress, and lifetime suicide attempts among a convenience sample of 120 TGGD adults. Within a larger composite measure of state-level structural stigma, state-level discrimination policies enumerating sexual orientation were associated with reduced lifetime suicide attempts among TGGD adults (Perez-Brumer et al., 2015). Du Bois et al. (2018) found that living in states with more protective and fewer discriminatory laws for TGGD individuals, such as protection from discrimination in schools and ability to change name and gender on identifying documents, predicted fewer poor mental health days. The psychosocial impact of school policies that allow students to identify their name and pronouns on records has not been evaluated but chosen name use in multiple contexts, including school, is linked to reduced suicidal behavior among TGGD youth (Russell et al., 2018). Likewise, the effects of offering gender inclusive restrooms has not been evaluated but higher rates of lifetime suicidal ideation have been reported among TGGD adults who recall a lack of gender inclusive restrooms during their college days (Seelman, 2016) and state bills that prevent TGGD people from accessing bathrooms consistent with their gender identity threaten their health (Reisner, Hughto, et al., 2015; Wang, Solomon, Durso, McBride, & Cahill, 2016).

Visibility of Inclusion Policies

An important, understudied aspect of how institutional policies and practices may shape health outcomes is the extent to which they are promoted and known. Though the work above offers some preliminary support for the utility of inclusive nondiscrimination, name and pronoun, and restroom policies in reducing poor psychosocial outcomes, the studies only measured policy presence (as determined by an outsider). The presence of a policy does not mean it is known. In fact, TGGD students express concerns about this in qualitative studies of inclusion policies and stress the need for policies to be promoted, publicized and known (Goldberg et al., 2018). The degree to which inclusive practices are visible to TGGD students

and the student body more generally may have an interactive impact on psychosocial outcomes, specifically suicidal ideation and sense of belonging, and inequities in these outcomes.

In one of the few studies to include psychosocial inequities as an outcome, researchers found that the presence of inclusive policies alone is insufficient for eliminating suicidal ideation inequities based on sexual orientation (Meyer, Luo, Wilson, & Stone, 2019). The visibility of inclusive policies and practices may be crucial missing piece for reducing suicidal ideation and sense of belonging inequities. When policies and practices are known across the student body, this may convey institutional commitment and establish inclusive norms on campus, shaping climate, sense of belonging and mental health (Rankin & Reason, 2008). For specific policies, visibility may also foster greater levels of adherence and impact psychosocial outcomes by shaping students' actual experiences on campus. Almost no research has measured the visibility of inclusive school policies. However, in one of the only studies to do so, it was found to be associated with middle and high school climate for gender non-conformity, which has relevance for belonging and mental health (Toomey et al., 2012). Personal awareness of inclusive school policies, as well as general visibility, may also impact suicidal ideation and sense of belonging. Goldberg and colleagues (2018) found that being personally aware of a greater number of trans-inclusive school policies was associated with enhanced sense of belonging and positive perceptions of the campus climate among a convenience sample of 507 TGGD college students. However, they did not measure policy visibility and personal awareness in the absence of general visibility could have a different effect on the individual who is aware of a policy to which most of their peers are oblivious.

Current Study

The current study will examine the visibility of 3 school policies valued by TGGD college students: 1) a nondiscrimination policy that includes gender identity and expression, 2) a policy or procedure allowing students to indicate their name and pronoun on campus records (e.g. course rosters and directory listings), and 3) the provision of gender-inclusive restroom options (Goldberg et al., 2018). I will consider the interacting effects of personal awareness of the policies and policy visibility at the institution and examine associations with sense of belonging and suicidal ideation among TGGD and cisgender students and sense of belonging and suicidal ideation disparities between the groups. To isolate the unique effects of students and student bodies knowing about TGGD-supportive policies, I will control for awareness of other

school policies meant to create inclusive and equitable campuses that may be implemented in tandem with TGGD-supportive policies and could serve as confounders. I hypothesize that TGGD inclusion policy visibility and personal awareness will be associated with enhanced psychosocial outcomes (i.e., reduced suicide ideation and improved sense of belonging) among TGGD students and that policy visibility will be associated with a reduction in disparities in psychosocial outcomes between TGGD and cisgender students.

The research is designed to address several gaps in the existing literature. It turns attention to institutional policy in higher education, rarely studied for its impact on TGGD students. It expands existing work by including both TGGD and cisgender students and directly examining psychosocial inequities as an outcome. In addition, it investigates a novel construct, policy visibility, and tests for interactions with policy awareness. Importantly, this study addresses a limitation of past research by controlling for visibility and awareness of other institutional inclusion practices, which could correlate with TGGD-inclusion policy visibility and awareness. Unlike most research with TGGD students in higher education, this research includes large, representative samples from multiple institutions, providing insight on how considerable variation in TGGD-inclusion across institutions shapes student outcomes (Goldberg et al., 2018).

Methods

Participants and Procedures

This study used Healthy Minds Survey (HMS) data from 28 colleges and universities that participated in the Climate for Diversity and Inclusion Survey between September 2018 and December 2019. HMS is an annual web-survey examining mental health and related factors among undergraduates and graduates (Golberstein, Eisenberg, & Gollust, 2008; Lipson et al., 2016). Colleges and universities elect to participate. Participating schools reflect a wide range of institutional types, locations, sizes, graduation rates, and residential characters.

HMS was approved by Institutional Review Boards on all campuses. An NIH Certificate of Confidentiality provided further protections. Data were collected using Qualtrics software. A random sample of 4,000 degree-seeking students was recruited from each institution (approximately 86,500 in total). Students were 18+ years old, with no other exclusions. Students were recruited via personalized links embedded in emails, signed by a school administrator, and leading to informed consent pages with terms of participation and the survey. Those participating were entered into a lottery to win one of several prizes totaling $2000 annually.

The overall response rate across all participating schools was 18%, which is consistent with other online surveys (Eisenberg, Golberstein, et al., 2007). To adjust for potential differences between student responders and non-responders, HMS constructs sample probability weights. Administrative data are obtained from participating institutions, including sex, race/ethnicity, academic level, and grade point average. These data are then used to construct response weights, equal to 1 divided by the estimated probability of response, using a logistic regression to predict the likelihood of response associated with each variable. Thus, weights are larger for respondents with under-represented characteristics, ensuring that estimates are representative of the student body at each school in terms of these known characteristics (Lipson et al., 2015; Lipson, Raifman, et al., 2019).

Measures

Dependent Variables*: Sense of Belonging*. Sense of belonging was measured with two items that have been used in prior studies (Bollen & Hoyle, 1990; Dugan et al., 2012; Goldberg et al., 2018). Students were asked to consider their experiences over the past 12 months and indicate the extent to which they agree or disagree (on a 5-point Likert scale) with the following statements: (a) I feel valued as an individual at this school and (b) I feel I belong at this school. Scores were averaged, and higher scores indicate a greater sense of belonging (possible range 0-5, $\alpha = .84$).

Suicidal Ideation. Suicidal ideation was assessed with one item, widely used with youth and young adults, including TGGD populations (Mueller, James, Abrutyn, & Levin, 2015; Turban, Beckwith, Reisner, & Keuroghlian, 2020). Students were asked if they ever seriously thought about attempting suicide in the past year (yes or no). Two institutions utilized a different measure of suicidal ideation and were, therefore, not included in the suicidal ideation model and analyses.

Independent Variables: *Gender Identity*. TGGD students were identified based on students' responses to 2 survey questions: (1) What was your assigned sex at birth? (response options: female, male, intersex) and (2) What is your current gender identity? (female, male, trans female/trans woman, trans male/trans man, genderqueer/
gender nonconforming and self-identify). Two independent reviewers assessed the write in responses provided by students self-identifying their gender. Sixteen respondents were mutually identified as providing responses that were not a gender identity (e.g., "apache helicopter") and

were dropped from the sample. Then, students who indicated their gender identity was trans, genderqueer/gender nonconforming or self-identified were classified as TGGD, as were students whose current gender identity does not match their indicated sex assigned at birth (National Academies of Sciences, Engineering, 2020; Reisner, Conron, et al., 2015).

Policy Awareness and Visibility. Students were asked which of several policies and practices were present at their college or university (single item). To create my TGGD policy scales, students were given one point for each of the following policies they indicated were present at their institution: 1) Comprehensive nondiscrimination policy that includes race, sex, gender identity and expression, sexuality, color, religion, creed, national origin or ancestry, age, and marital status, 2) Gender neutral/inclusive bathroom options, 3) Policy or procedure allowing students to indicate their preferred name and pronoun on campus records (e.g. course rosters and directory listings). Scores were summed and averaged such that the scale ranged from 0-1, with 0 reflecting awareness of none of the policies and 1 reflecting awareness of all three. A variable to quantify the visibility of TGGD-supportive policies was created by taking the average across all students at each school (applying survey weights). Since policy visibility ranged from .21 to .76 in my sample and 75% of students attended a school where policy visibility ranged between .31 and .51, I present my findings at three logical, evenly spaced values within this range: low (1 policy), average (1.25 policies), and high (1.5 policies) visibility.

Covariates: *Awareness and Visibility of Other Inclusive Policies.* I controlled for personal awareness and visibility of other school inclusion policies to isolate the unique impact of knowledge of TGGD-supportive policies. Following the exact same procedure as described for TGGD policies above (including applying survey weights), I created variables reflecting personal awareness and visibility of Student Life Inclusion policies and practices (having a multicultural center, LGBTQ Center, and/or race, ethnicity, diversity or related course requirement) and Inclusive Leadership Policies (having a diversity, equity and inclusion strategic plan and/or Chief Diversity Officer or senior-level administrator focused on Diversity, Equity and Inclusion at the institution).

Student Background Characteristics. Control covariates included mutually exclusive dummy variables (0/1) for age (<23, 23+), race/ethnicity (student of color vs. white), international students (yes vs. no), sexual orientation (sexual minority or not), campus housing (living in campus housing vs. not), and parent education (first generation college student vs. not).

Students who identified their race/ethnicity as "African American/Black, American Indian or Alaskan Native, Asian American/Asian, Hispanic/Latin(x), Native Hawaiian or Pacific Islander, Middle Eastern, Arab, or Arab American, or Self-Identify" were classified as students of color (SOC) and students who only selected "White" were classified as White. Students who selected "Lesbian; Gay; Bisexual; Queer; Questioning; Self-Identify" as their sexual orientation were classified as sexual minorities and those who indicated "heterosexual" were not. For campus housing, students were asked where they currently live. Those who indicated "on-campus housing, residence hall; on-campus housing, apartment; fraternity or sorority; on- or off-campus cooperative housing" were classified as living in campus housing and those who indicated "off-campus, non-university housing; off-campus, with my parents (or relatives), other" were classified as not living in campus housing. Students who indicated that the highest level of education completed by any of their parents or stepparents was an Associates degree or less were classified as first-generation. Parent education is a commonly used measure of SES in studies of young adults (Currie, Elton, Todd, & Platt, 1997; Lien, Friestad, & Klepp, 2001; Svedberg, Nygren, Staland-Nyman, & Nyholm, 2016). The small number of TGGD students in the sample unfortunately did not allow for looking at differences within the broad groups described here (e.g., African American/Black TGGD students or Bisexual TGGD students).

School Characteristics. Controls for school size (<3,000 students, 3,000-9,999, 10,000+ based on Carnegie Foundation's classification), ownership (public vs. private), graduation rate (≥ 60% *vs.* < 60%, according to U.S. News and World Report Rankings), residential status (residential: ≥25% of degree-seeking undergraduates live on campus and at least 50% attend full time vs. not, based on Carnegie Foundation's classification), competitiveness (highly and most competitive (1+2) vs. not, according to Barron's Profiles of American Colleges selectivity scores), and region (Northeast, South, West, Midwest) were included at the school level.

Statistical Analysis

I analyzed data using STATA, version 15, and fit mixed effect regression models to understand the relationships between policy visibility and psychosocial outcomes for TGGD and cisgender students. All models used the sample probability weights described above. None of the outcomes or covariates were missing more than 3% of responses; therefore, all missing data were dropped from the data set, resulting in a sample of 15579 students from 28 institutions. Multicollinearity was assessed, and a VIF under 10 confirmed that none of the variables were too

closely associated with each other. Descriptive statistics and t-test and chi-square statistics were computed to compare differences between TGGD and cisgender students. A correlation table was drawn using Pearson's correlations. An alpha level of 0.05 was used to determine significance for all analyses.

I used a logistic mixed effect regression for my binary outcome (suicidal ideation) and linear mixed effect regression for my continuous outcome (belonging). To account for the clustering of data by school, a random intercept was included for each school. It is possible that the relationship between policy visibility and outcomes of interest depends on students' personal awareness. Likewise, it is possible that the impact of personal awareness depends on policy visibility at the institution; and the impact of any interaction between personal awareness and institutional visibility could well vary between TGGD and cisgender students. I, therefore, included three-way interactions in all models, interacting policy visibility with personal policy awareness and TGGD status. I did so with all 3 policy scales to identify the unique contribution of TGGD supportive policies. I adjusted all models for all student and school characteristic covariates.

To test my first hypothesis, I estimated the relationship between policy visibility and my outcomes in the 8 groups defined by gender and personal awareness (i.e. for TGGD and cisgender students personally aware of 0,1,2 and 3 policies; see **Figure 4.1**). I next estimated the relationship between personal awareness and my outcomes for TGGD and cisgender students attending schools with low, average, and high policy visibility (**Figure 4.2**). In the linear model, with my continuous belonging outcome, the relationship is represented by a slope and in the logistic model, with my binary suicidal ideation outcome, the relationship is represented by an odds ratio.

To test my second hypothesis, I obtained the difference in adjusted predicted outcomes for TGGD and cisgender students at different levels between low (1 policy) and high (1.5 policies) policy visibility from the models (see **Figure 4.3**). I tested whether those differences were different from zero at low, median, and high policy visibility.

Results

Study Sample

As detailed in **Table 4.1**, the sample included 15579 participants from 28 colleges and universities across the United States. Overall, 97.3% identified as cisgender (*n*=15241) and 2.7%

as TGGD (*n*=338); Among TGGD students, 30% identified as transgender men, 7.8% identified as transgender women, 51% identified as genderqueer, and 12% self-identified their gender. Among cisgender students, 58% identified as women and 42% identified as men. The majority of participants (67%) were 18-23 years old. Nearly two-thirds of the sample overall was White and 37% were SOC; among TGGD participants, 73% were White. The majority of TGGD participants identified as a sexual minority (89%); 17% of cisgender participants did. Overall, 30% of participants were first-generation, 8% were international, and 43% lived in campus housing. The majority of participants attended a large (45%), public (62%), residential (86%) institution. But 31% attended a small school and 24% attended a medium sized school. 38% of participants attended a school with a graduation rate of less than 60%. Participants attended institutions in the Northeast (35%), Midwest (26%), South (31%) and West (8.1%).

Descriptive statistics for my key outcomes and predictors are also documented in **Table 4.1**. On average, cisgender participants agreed with feeling a sense of belonging and being valued in school (*M = 3.62, SD=.96*). In comparison, TGGD participants had a significantly lower sense of belonging (*M = 3.26, SD = .84)*, closest to *neither agreeing nor disagreeing* with feeling a sense of belonging, t(15,459) = -3.26, *p* = .003. Thoughts of suicide in the past year were present for 14% (*n*=1828) of participants overall but for 35% (*n*=113) of TGGD students and 13% (*n*=1715) of cisgender students, t(14,774) = 5.26, *p < .001*.

In my sample, TGGD-inclusion policy visibility ranged from a school where students were, on average, aware of less than 1 of the 3 policies (.21) to a school where students were, on average, aware of more than 2 and almost all 3 of the policies (.76). Mean policy visibility was almost 1.5 policies (M=0.47, *SD = 0.15*) for TGGD participants but closer to 1 policy (M=0.40, *SD=0.*14) for cisgender participants, t(15,577) = 3.16, *p* = .004. Across individuals in my sample, students were aware of between 0 and all 3 of the policies, with 37.4% of participants aware of none of the policies, 22.9% aware of one policy, 20.4% aware of two policies, and 19.4% aware of all three policies. On average, participants were aware of almost 1.25 policies (*M* = 0.41, *SD* = 0.38). Average personal awareness was significantly larger among TGGD participants (*M* = 0.53*, SD = 0.35)* than among cisgender participants (*M* = 0.40, *SD* = 0.38), t(15,577) = 3.45, *p* = .002.

Table 4.1 *Descriptive Statistics of Sample and Study Variables (N = 15579)*

	Full Sample		TGGD Students		Cisgender Students		Test
	%/M	(n/SD)	%/M	(n/SD)	%/M	(n/SD)	Statistic
Student Characteristics							
Transgender or Gender Diverse (TGGD)	2.7%	338	100%	338	0	0	
Sex Assigned at Birth							
Female	58%	10948	78%	275	57%	10673	**0.000**
Male	42%	4602	22%	59	42%	4543	**0.000**
Intersex	0.03%	6	0.51%	4	0.02%	2	**0.002**
Gender Identity							
Cisgender Male	41%	4549	0	0	42%	4549	
Cisgender Female	56%	10692	0	0	58%	10692	
Transgender Male	0.81%	96	30%	96	0	0	
Transgender Female	0.21%	30	7.8%	30	0	0	
Genderqueer	1.4%	165	51%	165	0	0	
Self-Identify	0.32%	47	12%	47	0	0	
Age							
18-23	67%	9626	78%	231	67%	9395	**0.008**
23+	33%	5953	22%	107	33%	5846	**0.008**
Race							
White	63%	8792	73%	216	62%	8576	**0.022**
Black	6.4%	824	4.1%	9	6.5%	815	0.276
Hispanic	12%	1840	6.3%	29	12%	1811	**0.005**
Asian	13%	2915	5.6%	34	5.1%	912	**0.003**
Multiethnic	5.2%	954	9.6%	42	1.5%	246	**0.035**
Other	1.5%	254	1.8%	8	3.6%	592	0.641
Sexual Minority	19%	2780	89%	292	17%	2488	**0.000**
First Generation Student	30%	4494	26%	92	30%	4402	0.356
International Student	8.0%	1777	3.6%	20	8.1%	1757	**0.013**
Live in Campus Housing	43%	5583	59%	139	43%	5444	**0.002**
School Characteristics							
School Size							
Small	31%	1628	56%	78	31%	1550	**0.000**
Medium	24%	3012	13%	46	24%	2966	**0.020**
Large	45%	10939	31%	214	45%	10725	**0.021**
Public	62%	10428	61%	243	62%	10185	0.911
Private	38%	5151	39%	95	38%	5056	0.911
Residential	86%	14435	89%	308	86%	14127	0.376
Graduation Rate <60%	38%	4710	31%	110	38%	4270	0.337
Region							
Northeast	35%	3804	31%	80	36%	3724	0.588
Midwest	26%	6027	25%	139	26%	5888	0.972
South	31%	2852	38%	69	30%	2783	0.399
West	8.1%	2896	5.6%	50	8.2%	2846	0.315
Outcomes and Predictors							
Sense of Belonging	3.61	0.96	3.26	0.84	3.62	0.96	**0.003**
Suicidal Ideation	14%	1828	35%	113	13%	1715	**0.000**
TGGD Policy Visibility	0.41	0.14	0.47	0.15	0.40	0.14	**0.004**
TGGD Policy Personal Awareness	0.41	0.38	0.53	0.35	0.40	0.38	**0.002**

Notes. Table values are weighted percentages and unweighted counts. Boldface indicates statistical significance.

As shown in **Table 4.2**, significant bivariate correlations existed between my psychosocial outcome measures and school policy visibility and awareness as well as many student and institutional characteristics. Personal awareness of all three types of school inclusion policies (TGGD supportive policies, Student Life policies and Leadership policies) was positively correlated with sense of belonging. Visibility and awareness of inclusive school leadership policies was associated with reduced suicidal ideation. Being a TGGD, first generation, sexual minority student or SOC student was associated with reduced sense of belonging, as was attending a medium, large or public institution, one with a graduation rate less than 60%, or a school in the Northeast. Being an international student, living in campus housing and attending a very residential campus was associated with enhanced sense of belonging. Being TGGD, first generation, a sexual minority, or living in campus-housing was correlated with more suicidal ideation. Attending a small, public, low graduate rate, or Southern school was also correlated with more suicidal ideation. Being older than 23, an international student, and attending a large, residential school, or one located in the West was correlated with less suicidal ideation.

Table 4.2 Correlation Matrix of Predictors and Psychosocial Outcome Variables

|	Sense of Belonging	Suicidal Ideation
TGGD Policy Visibility	-0.01	-0.00
TGGD Policy Personal Awareness	0.12***	0.00
Student Life Policy Visibility	-0.01	-.01
Student Life Policy Personal Awareness	0.11***	0.01
Leadership Policy Visibility	0.02**	-0.02*
Leadership Policy Personal Awareness	0.14***	-0.03***
TGGD	-0.06***	0.11***
23+	-0.00	-0.08***
First generation student	-0.06***	0.02**
Student of color	-0.06***	-0.00
Sexual Minority	-0.12***	0.17***
International Student	0.03***	-0.05***
Campus housing	0.03***	0.04***
Small	0.01	0.04***
Medium	-0.03***	0.01
Large	-0.04***	-0.03***
Public	-0.05***	0.04***
Grad <60%	-0.03***	0.05***
Residential	0.03***	-0.03***
Northeast	-0.03***	0.01
Midwest	0.01	-0.01
South	0.00	0.04***
West	0.01	-0.04***

Multivariable Results

I next fit my multivariable, mixed effect regression models. **Figure 4.1** presents the adjusted estimated relationships between policy visibility and my outcomes of interest for TGGD and cisgender students personally aware of 0, 1, 2 or 3 of the policies. For TGGD students aware of all 3 policies, school visibility of the policies was significantly and positively correlated with sense of belonging ($\Delta = .15^*$ CI [.02, .28]). For all cisgender students, no matter their level of personal awareness, school visibility of TGGD-supportive policies was associated with reduced odds of belonging. Among TGGD students aware of 2 or more policies, school visibility of the policies was associated with reduced probability of suicidal ideation. For cisgender students, policy visibility was not associated with suicidal ideation.

Figure 4.2 presents the adjusted estimated relationships between personal awareness of TGGD-supportive policies and my outcomes of interest for TGDD and cisgender students at schools with low, average, and high policy visibility. Personal awareness of these policies was associated with enhanced sense of belonging for TGGD students, but only at schools where more than one policy was visible across the student body (average or high policy visibility). For cisgender students, personal awareness was associated with enhanced sense of belonging at schools with low, average and high visibility. For TGGD students, personal awareness was associated with reduced suicidal ideation at schools with high policy visibility [OR=0.85* CI [.71, .99]]. For cisgender students at schools where there is little awareness of the policies, personal awareness was associated with a small increase in the probability of suicidal ideation [OR=1.03** CI [1.01, 1.05]].

Seeing that policy visibility was associated with both suicidal ideation and sense of belonging among cisgender and TGGD students, I next tested my second hypothesis that it would be associated with reduced disparities in psychosocial outcomes. As shown in **Figure 4.3** Panel A, visibility of TGGD-supportive policies was significantly associated with reduced TGGD-cisgender sense of belonging inequities. At schools where students were only aware of 1 policy, cisgender students scored .33 points (CI [.16, .50]) higher on sense of belonging than TGGD students. At schools with average policy visibility in my sample (where students were aware of 1.25 policies), cisgender students scored .22 points higher (CI [.10, .34]) on sense of belonging than TGGD students. At schools with high visibility, where students were aware, on

121

average, of 1.5 of the 3 policies, sense of belonging inequities were eliminated (.11 CI [-.04, .26]).

Figure 4.1 *Association Between* Policy *Visibility, Sense of Belonging and Suicidal Ideation for TGGD and Cisgender Students Personally Aware of 0, 1, 2 or 3 of the* Policies
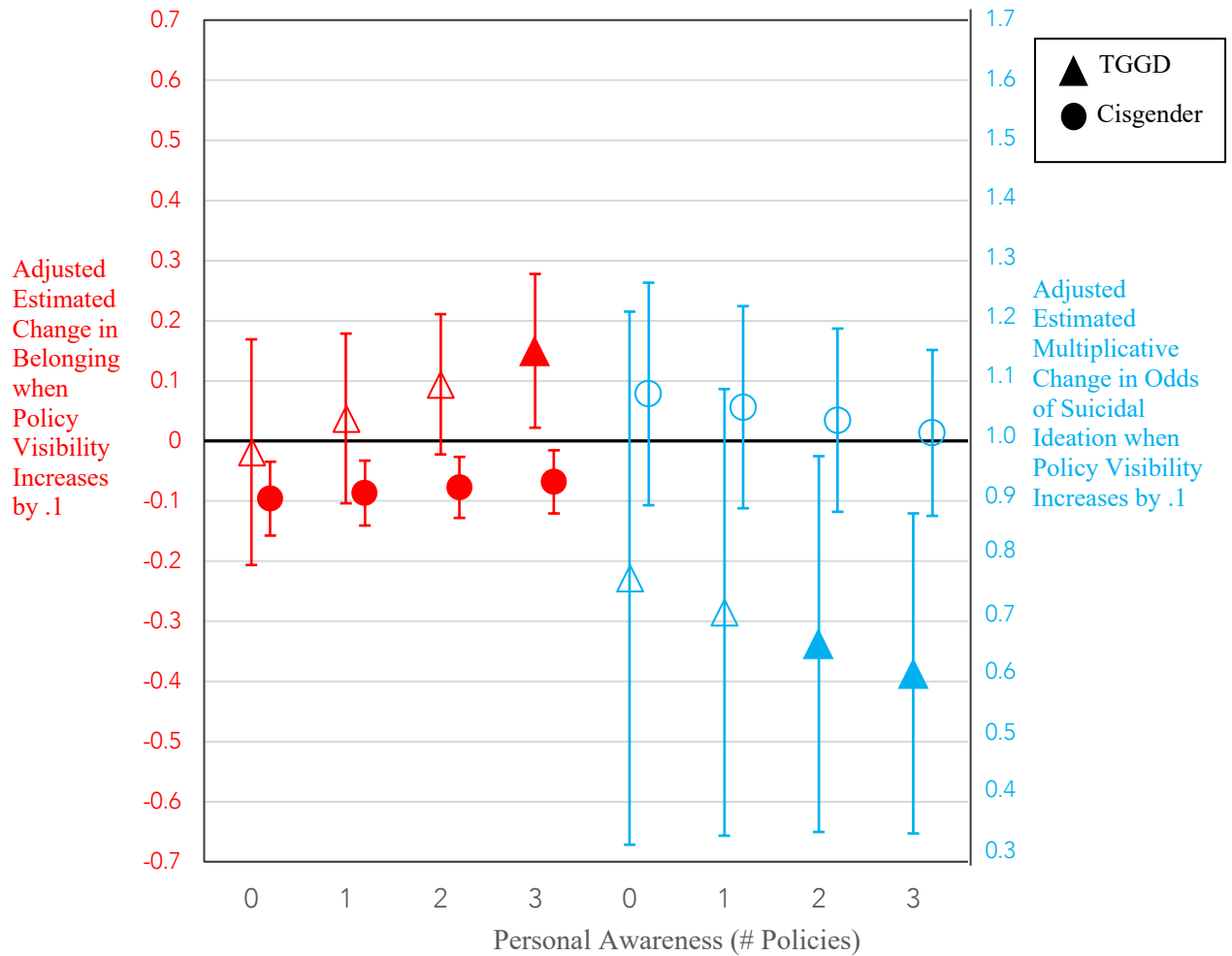
Notes. Solid shapes depict significant relationships (p<.05) and hollow shapes reflect insignificant relationships. Visibility variable is scaled by ten to ease interpretation.

Figure 4.2 *Association Between Personal Awareness, Sense of Belonging and Suicidal Ideation for TGGD and Cisgender Students at Schools with Low, Average, and High Visibility*
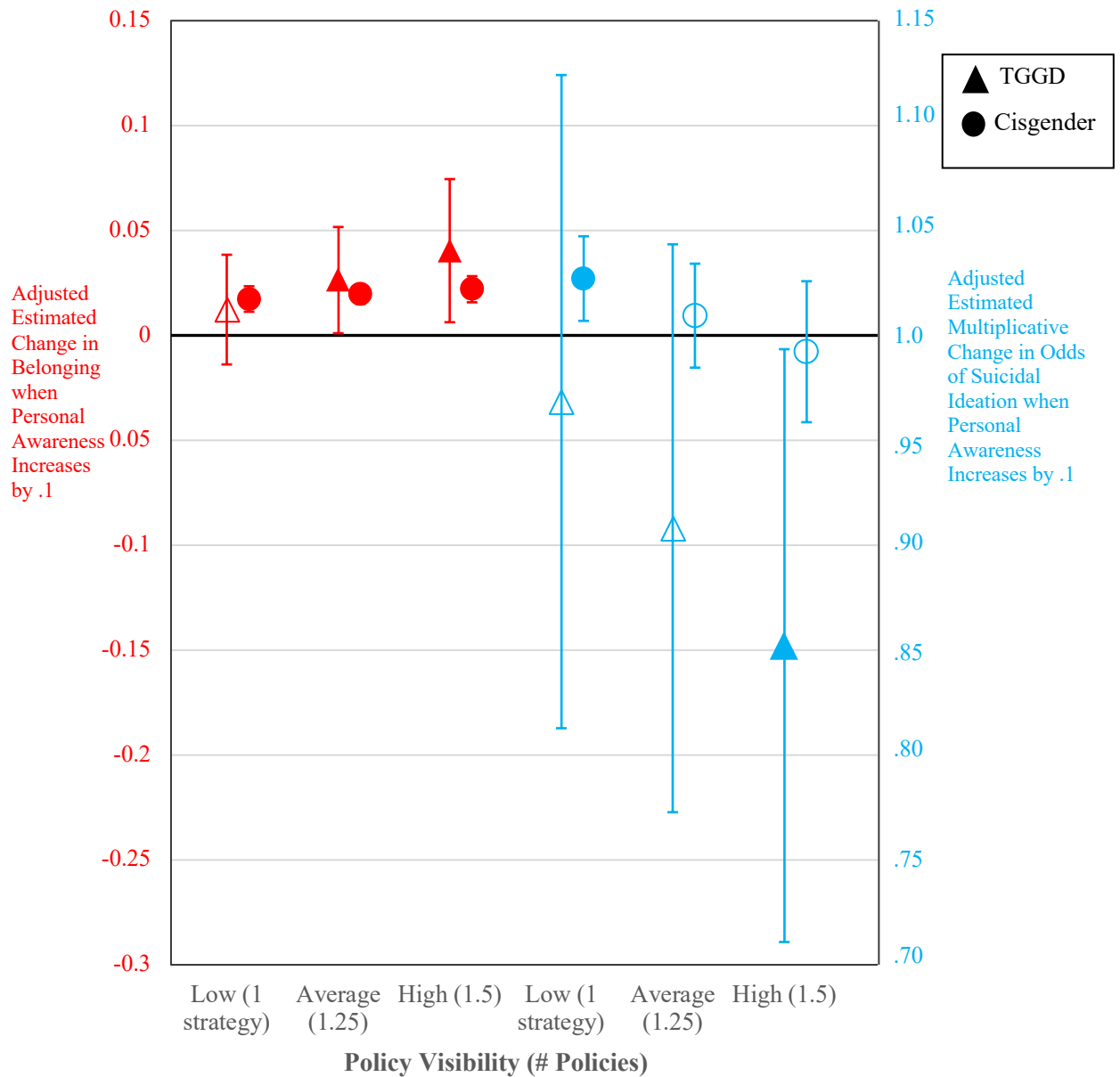
Notes. Solid shapes depict significant relationships (p<.05) and hollow shapes reflect insignificant relationships. Policy visibility reflects the average number of policies students are aware of at the institution. Low visibility is schools where students are on average aware of 1 policy. Average visibility reflects schools at the mean visibility level, where students are on average aware of 1.25 policies. High visibility reflects schools where students are on average aware of 1.5 policies. Personal awareness variable is scaled by ten to ease interpretation.

Figure 4.3 *Sense of Belonging and Suicidal Ideation Inequities as Policy Visibility Increases*
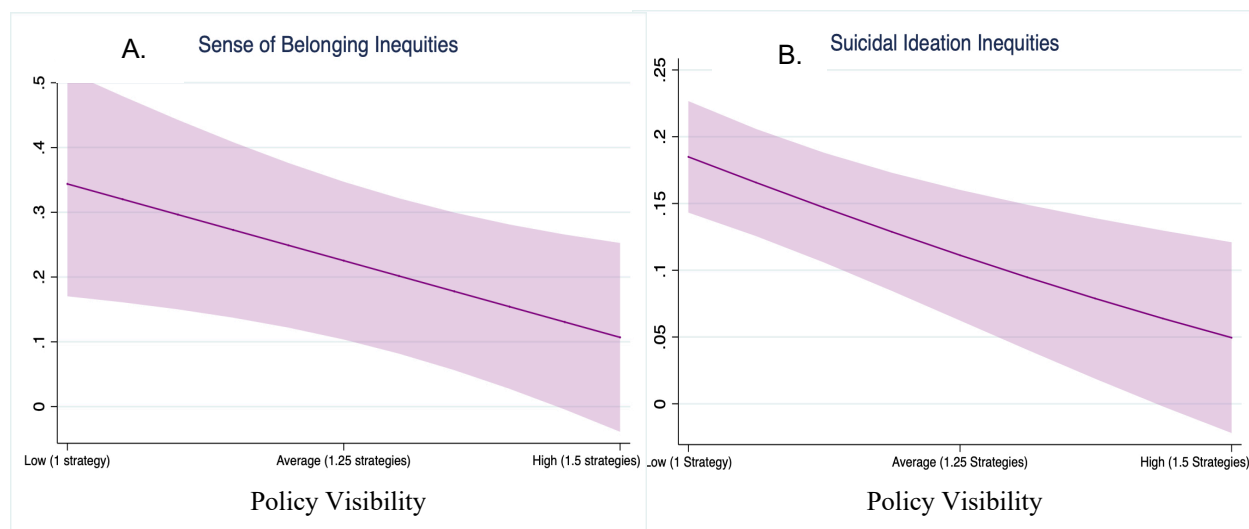
Note. Figures depict contrasts of marginal predicted means and proportions. Panel A depicts average sense of belonging score among cisgender students minus the average sense of belonging among TGGD students as policy visibility increases. Panel B depicts the proportion TGGD students experiencing suicidal ideation minus the proportion of cisgender students experiencing suicidal ideation as policy visibility increases.

As shown in **Figure 4.3** Panel B, visibility of TGGD-supportive policies was also significantly associated with reduced TGGD-cisgender inequities in suicidal ideation. At schools with low policy visibility, 18.5% (CI [.14, .23]) more TGGD students experienced suicidal ideation compared to cisgender students. At schools with average policy visibility in my sample, 11.1% (CI [.06, .16]) more TGGD students experienced suicidal ideation compared to cisgender students. Suicidal ideation inequities were eliminated (.05 CI [-.02, .12]) at schools with high policy visibility (where 1.5 policies were visible).

Discussion

Using a multi-institution sample, I investigated the relationship between visibility and awareness of school policies valued by TGGD students and psychosocial outcomes and inequities among TGGD and cisgender college students. Multivariable results reveal that personal awareness and visibility of policies valued by TGGD students at colleges and universities correlate with TGGD and cisgender students' suicidal ideation and sense of

belonging and enhanced visibility is associated with reduced disparities in psychosocial outcomes between TGGD and cisgender students.

This research makes several valuable contributions to the empirical literature. The study importantly shifts attention from documenting the marginalization and mistreatment faced by TGGD students, which has characterized much existing research, to examining supportive, inclusive policies employed by schools and the role of these institutional actions in shaping inequities (Pitcher et al., 2018). I extend past research by examining policies employed at colleges and universities. I add to the research literature by demonstrating that suicidal ideation and sense of belonging inequities vary across institutions of higher education and showing that they do so in association with the visibility of supportive school policies. Research examining the role of policy and structural factors in shaping outcomes has rarely included both cisgender and TGGD individuals so understanding impacts on inequities is novel and adds to existing science. Controlling for awareness and visibility of other school policies to enhance inclusion allowed me to identify the unique relationship between TGGD-supportive policies and psychosocial inequities. Not adjusting for these potential confounders is a noted limitation of past research (Woodford et al., 2018).

My findings help to advance the field by highlighting the importance of the visibility of supportive school policies, an unmeasured construct at colleges and universities. Finding that school visibility of policies matters for TGGD student suicidal ideation is consistent with existing theory and past research that emphasizes the role of social context in shaping thoughts of suicide among TGGD young people (Clements-Nolle, Marx, Katz, et al., 2006; Hendricks & Testa, 2012; Johns et al., 2019; Seelman, 2016; Turban et al., 2020). Based on qualitative research, school policies have been hypothesized to impact student outcomes by serving as a specific source of support but also by conveying the institution's values and shaping the climate (Pitcher et al., 2018). Finding an interaction between personal awareness and visibility of supportive policies in shaping suicidal ideation and belonging among TGGD students may suggest that supportive school policies are signaling supportive institutional values and fostering an inclusive climate for TGGD students. Higher education institutions each develop their own unique normative climates and cultures (Katz & Kahn, 1978; Kezar, 2001, 2013) and policies are one way that schools communicate and enforce the norms and values that they hold (Pitcher et al., 2018). Visible inclusion practices may make some students feel supported "regardless of

their personal need to call on the policy for protection" (Pitcher et al, 2018), as has been found in qualitative research, and benefit their psychosocial wellbeing directly. Visible pronoun identifiers, inclusive restrooms, and inclusive non-discrimination policies may also indirectly influence psychosocial outcomes by shaping student behaviors, discouraging discrimination, and ensuring consequences for those who "knowingly perpetrate such behavior" (Hall, 2017 from Woodford 2018; also emphasized by a student in Pitcher et al. 2018). In other words, visibility may create a campus culture that is intolerant of anti-TGGD bias.

Documenting the interacting effects of person-level and student-body awareness of supportive policies on college campuses also adds to the literature in other ways. Identifying a positive association between personal awareness of supportive school policies and sense of belonging among TGGD students is consistent with findings from Goldberg and colleagues (2018) who found a link between personal awareness of supportive school policies and sense of belonging among TGGD college students, but my work adds nuance by suggesting that the effect of personal awareness is context dependent. My research suggests the importance of measuring awareness and visibility in future work assessing the role of school policies in other contexts in shaping psychosocial outcomes and inequities.

Future research is also needed to better understand what drives personal awareness and visibility of inclusive institutional policies. What leads some students to become aware of the practices? Does positive promotion of policies, strict enforcement, or public incidents of bias or mistreatment render inclusion policies visible to the student body? I found a positive correlation between personal awareness of TGGD-supportive policies and cisgender student suicidal ideation at schools with low visibility. Rather than personal awareness leading to suicidal ideation at schools with low visibility while it enhances belonging at all school visibility levels, it may be that cisgender students aware of the nondiscrimination policy, bathroom options and pronoun-indication options at schools where they are not visible, are questioning their gender identity. Research shows that young people questioning their gender identity are at greater risk for suicidal ideation (Guz et al., 2021). Alternatively, something else—a confounder—could account for this association at low visibility schools.

Limitations

This research makes several important contributions, but it is not without limitations. Analyses do not include an objective measure of policy presence. Personal and student-body

awareness of school policies exist independently of objective policy presence and are, therefore, important to measure. However, without controlling for objective policy presence, it is not clear to what degree policy visibility reflects policy presence versus effective promotion. While there is not an objective measure of every policy examined in my study (e.g., there is no objective measure of the presence/absence of gender inclusive bathroom options at institutions), I ran a sensitivity analysis controlling for one objective measure of policy presence in each scale (the presence of an inclusive nondiscrimination policy, LGBTQ center, and Chief Diversity Officer) in my models and the results remained the same. This study also lacked measures of state policy context. States vary significantly in their level of protection for TGGD people (Goldenberg et al., 2020b). I controlled for school location at a region level (North, South, East, West) but future research should examine whether the impact of inclusive campus policies varies based on the state policy context.

Having representative data from 28 different schools is a significant strength of this research given that most existing work with TGGD students has been done almost exclusively with convenience samples at single institutions or with just one student from each school (Pitcher et al., 2018; Renn, 2010). However, not having a random sample of schools is a limitation. I include schools representing many different sizes, types, and characteristics, making the findings generalizable to many different types of schools but schools that elect to participate in Healthy Minds could differ from schools that do not. The low student response rate is also a limitation. I used survey weights to help adjust for differences between responders and nonresponders but could only adjust for characteristics tracked by the institution (e.g., institutional data was not available to make the estimates representative of first-generation students). The small number (though representative proportion) of transgender and gender diverse students in the sample precluded examining differences within the TGGD population (e.g. between trans men, women, and nonbinary students) and looking at differences by race and ethnicity, which is important for future work (Lett, Dowshen, & Baker, 2020; Sutter & Perrin, 2016). Overall, however, including many diverse institutions of higher education located in every region of the country and large, representative samples from each school enabled me to use hierarchical modeling and survey weights to understand variation within and between institutions, and to produce findings that are generalizable to many schools and colleges across the country.

127

The cross-sectional nature of my analyses limits causal conclusions. Future causal research is needed to shed light on whether school actions drive down inequities or whether TGGD students with higher sense of belonging and fewer thoughts of suicide navigate to schools with more visible supportive policies. Finding that visibility is linked to reduced inequities in belonging, a factor so tied to students' experiences at the school, may lend support to the idea that school actions can make a difference. Regardless of whether visible supportive policies attract TGGD students who are well psychosocially or act to improve psychosocial outcomes for these students, the relationship between visibility and reduced inequities suggests that it is in the best interest of higher education leaders and policy makers to not just adopt supportive school policies but promote them broadly across the student body. Ideally, future research will include schools with a wider range of policy visibility—schools where no students are aware of any supportive policies for TGGD students and those where most students are aware of all three. Having schools representing limited policy visibility range may have reduced the magnitude of my results.

Conclusion

This study shows that highly visible school inclusive nondiscrimination policies, gender inclusive restrooms, and pronoun options are associated with reduced psychosocial inequities for TGGD college students, and that awareness of such policies has some benefits for cisgender students as well. My findings lend support for the assertion that TGGD-supportive school policies hold promise for the twin goals of improving health at the population level and reducing inequities (Hatzenbuehler, Keyes and Hasin, 2009) through contributing to reducing TGGD-cisgender psychosocial inequities and improving psychosocial outcomes among both TGGD and cisgender students at colleges and universities.

Existing research has shown that protective policies outside of postsecondary settings shape the health of TGGD people (Du Bois et al., 2018; Goldenberg et al., 2020b; Goldenberg, Reisner, Harper, Gamarel, & Stephenson, 2020a; Hasenbush, 2019; Kull et al., 2016; McDowell, Raifman, Progovac, & Rose, 2020). My research suggests school-level inclusion policies in higher education are also important. Inclusive nondiscrimination policies, gender inclusive restrooms, and name/pronoun identification options matter for sense of belonging and college students' thoughts of suicide, as does their visibility across the student body. While cross-sectional analyses limit causal claims, my findings are consistent with previous research

suggesting that supportive actions and efforts by schools are important for psychosocial outcomes among TGGD students (Heck et al., 2011; Mcguire, Anderson, Toomey, & Russell, 2010; Russell & Toomey, 2013; Toomey et al., 2012; Weinhardt et al., 2017). If there are institutional policies that can improve psychosocial outcomes at institutions of higher education, with particular impact on TGGD students who experience a greater burden of concerns (Chen et al., 2019; Lipson et al., 2018; Lipson, Raifman, et al., 2019), this will provide more powerful and cost-effective prevention approaches than funding continuously rising costs of providing traditional mental health services, which are currently failing to keep up with escalating service demands (Lipson, Lattie, et al., 2019; National Academies of Sciences Engineering & Medicine, 2021). Given the link between sense of belonging and academic outcomes and between suicidal ideation and suicide, making TGGD-inclusion practices known and visible may be an important way to make institutions of higher education more equitable and save lives.

CHAPTER 5: Conclusions and Implications

Mental health is a neglected public health crisis globally (Auerbach et al., 2016; Kohn, Saxena, Levav, & Saraceno, 2004; Murthy et al., 2001; Office of the Surgeon General, 2021b; World Health Organization, 2002). At U.S. colleges and universities, student mental health problems have escalated steadily for over a decade and now exceed the current capacity of institutions to respond (Center for Collegiate Mental Health, 2020; Duffy et al., 2019; Lipson, Lattie, et al., 2019). The prevalence of concerns and entrenched inequities have left schools looking for solutions and opportunities to prevent problems, improve mental health, and enhance mental health equity (Eisenberg, 2019).

In this dissertation, I provided a comprehensive, multidisciplinary review of the existing evidence-base for intervening to address college student mental health. Study 1 (Chapter 2) identified, reviewed, and organized institutional opportunities for intervention at every level of the socioecological model (Bronfenbrenner, 1979; Mcleroy et al., 1988). In doing so, it identified strengths, weaknesses, and gaps in the research literature to date. Overall, I found that research has primarily focused on individual-level interventions and secondarily on interpersonal and community-level interventions.

Far less work has examined opportunities for institutional-level interventions or how school policies and practices shape student mental health outcomes. In the second part of this dissertation, I advanced research on two arenas of institutional practice—policing and transgender and gender diverse (TGGD)-inclusive policies—and demonstrated their relevance for enhancing mental health equity. The work involved developing two new quantitative surveys and surveying nearly 21,000 students at 28 institutions of higher education. Study 2 (Chapter 3) provided the first, representative exploration of college student police encounters, examining experiences, attitudes, concerns, and policy perspectives at a large, public institution in the Midwest. It looked at how institutional policing investments and practices impact students, with a rare focus on the intersection of race and gender, looking specifically at White, Asian, and underrepresented racial minority (URM) cisgender male, female, and TGGD students to identify

130

significant differences in student experiences and perspectives across groups. Study 3 (Chapter 4) provided novel data on the impact of school inclusion policies for supporting TGGD students. With data from 28 institutions, I demonstrated that students' personal awareness of these policies, as well as their visibility at the institution, was associated with sense of belonging, suicidality, and the gap in these outcomes between TGGD and cisgender students.

This dissertation moves the field of student mental health—both in terms of science and practice—beyond focusing on documenting the problem and focusing on individual students to address it. It identifies opportunities for institutions to become more mental health- and mental health equity-promoting environments. It also suggests the need for a more evidence-informed, policy-focused, equity-minded approach to college student mental health. In the sections that follow, I will summarize major findings from all three studies and then discuss public health implications and next steps for research, policy, and practice.

Dissertation Summary

Study 1 (Chapter 2)

My multi-level review of interventions revealed that colleges and universities have evidence-based opportunities to enhance student mental health at every level of the socioecological model to enhance student mental health. This model, introduced in Chapters 1 and 2, emphasizes how individual, interpersonal, community and institutional factors, and the enabling environment interact to influence health and wellbeing (Bronfenbrenner, 1979; Mcleroy, Bibeau, Steckler, & Glanz, 1988). I identified a robust, strong, and growing evidence-base for individual prevention and intervention programs (Buchanan, 2012; Cimini & Rivero, 2018a; Conley, Durlak, & Kirsch, 2015; Conley, Durlak, Shapiro, Kirsch, & Zahniser, 2016; Reavley & Jorm, 2010; Regehr, Glancy, & Pitts, 2013; Rith-Najarian, Boustani, & Chorpita, 2019; Shiralkar, Harris, Eddins-Folensbee, & Coverdale, 2013; Yager & O'Dea, 2008). Evidence is overwhelming that commonly used approaches like psychoeducation (targeting students' mental health knowledge, attitudes, coping, and help-seeking behaviors) are not very effective (Conley, Durlak, & Dickson, 2013; Conley et al., 2015, 2016; Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012; Durlak, 1997; Stice, Shaw, & Marti, 2007; Yager & O'Dea, 2008; Yamaguchi et al., 2013). However, here is strong evidence that interventions with supervised skill-practice are highly effective at promoting mental health and preventing and reducing mental health problems (Conley, 2015; Conley et al., 2015). Supervised skill-practice programs have

demonstrated positive effects on depression, anxiety, stress, distress, socio-emotional skills, and academic outcomes, at least with samples comprised predominantly of White women at four-year institutions (Conley, 2015; Conley et al., 2015). Within this intervention category, mindfulness programs are the most effective, while cognitive behavioral and relaxation interventions show promise, and meditation programs have minimal evidence for effectiveness (Conley, 2015; Conley et al., 2015; Regehr et al., 2013). Further research is needed to confirm the effectiveness of supervised skill-based interventions over the long-term in diverse settings and with diverse populations. However, given research demonstrating that these programs may be as effective as clinical treatment, colleges and universities should focus on where and how they can be adopted and scaled (Conley, 2015; Conley et al., 2015, 2017). Coaching interventions and identity-support interventions, which also target individual-level factors, warrant further research.

Despite substantial evidence indicating multiple important avenues for interpersonal interventions to enhance student mental health and evidence of their effectiveness outside of higher education, I found that few formal interventions have been designed for and robustly evaluated with college students. Two exceptions, involving group peer programs (one focused on social support in the transition to college and another focused on eating disorder prevention), were well evaluated and shown to be effective across a range of racial/ethnic groups. (Becker et al., 2005; Halliwell & Diedrichs, 2014; Lamothe et al., 1995; Mattanah et al., 2010, 2012; Matusek et al., 2004; Mitchell et al., 2007; Pratt et al., 2000; Stice et al., 2014, 2006). There is also growing attention to and evidence for the effectiveness of belonging interventions (Binning et al., 2020; Brady et al., 2020; Gilken & Johnson, 2019; Layous et al., 2017; Marksteiner et al., 2019; Stephens et al., 2014; Walton et al., 2015; Winkelmes et al., 2016). Overall, far more research should be dedicated to investigating the potential for peer, family, faculty, staff, belonging, and interpersonal harm reduction interventions to play a role in promoting mental health and reducing mental health inequities at schools. For instance, peer programs may help support students of color (SOC) and international students who are less likely to access clinical services (Dubovi & Sawyer, 2018). Interventions connecting college students from traditionally underrepresented backgrounds with mentors may reduce psychological distress and depressive symptoms in these students (Hurd et al., 2018, 2016; Le et al., 2021). Likewise, interventions that reduce discrimination and microaggressions faced by TGGD students, which lead to

psychological distress and mental health symptoms, may enhance mental health equity across gender (Matsuno, 2019; McDowell et al., 2020; National Academies of Sciences, Engineering, 2020).

Community-level interventions (e.g., gatekeeper trainings, screening interventions, school-wide programs combining these and other approaches, postvention following suicide, and learning environment interventions) have received evaluation attention with mixed results. However, methodological weaknesses (e.g., measuring outcomes only at the individual-level and at pre- and post-intervention without adequate control comparisons) have hindered full understanding of their potential. For example, gatekeeper trainings have largely been assessed only via trainee knowledge and skills (pre-to-post), whereas the impact on campus mental health of institution-wide training to recognize and respond to early signs of student distress might be more important (Lipson, 2014; Lipson et al., 2014). Moreover, curricular and pedagogical shifts to focus on mental health promotion and stressor reduction have begun to show promise; however, current outcomes are largely based on individual class participant data through pre-to-post assessment (Bowman, 2010a; Hood et al., 2021; Riley & Mcwilliams, 2007; Wasson et al., 2016). Schools could implement and broadly evaluate interventions at scale institutionally, or across departments or residence halls, with a focus on shifting culture and norms to better support student mental health. More research is needed to understand and guide such efforts and their impacts in higher education, but this approach has been effective in other settings (Ahern et al., 2018; Aseltine & DeMartino, 2004; Ciffone, 2007; King, Strunk, & Sorter, 2011; Schilling, Lawless, Buchanan, & Aseltine, 2014; Wasserman et al., 2015; Wyman et al., 2010).

My review similarly revealed a lack of focus on institutional-level interventions. Despite strong evidence from outside of higher education for broad approaches, such as environmental changes to restrict means for suicide or policy changes to promote mental health (Beautrais, 2001; Cantor & Hill, 1990; Jed Foundation, 2019; Raifman et al., 2018; Reisch & Michel, 2005), I identified few studies evaluating the impact of built environment interventions, college and university policies, or institutional practices on student mental health and wellbeing. However, I documented strong theoretical and empirical research indicating many pathways through which all are likely shaping student mental health. Evidence of the importance and value of structural approaches to health promotion and organizational change in higher education, as well as calls for upstream, environmental strategies in national mental health reports suggest this is an arena

in urgent need of research (Kezar, 2019; National Academies of Sciences Engineering & Medicine, 2021; Office of the Surgeon General, 2021b). Institutional factors and their impact on mental health were the foci of my empirical studies (Studies 2+3, Chapters 3+4).

After reviewing individual, interpersonal, community, and institutional interventions to enhance student mental health, I then examined the enabling environment and its ability to respond to and support students. For example, federal, state, and local policies influence student health behaviors and help-seeking, shape colleges' and universities' financial ability to invest in mental health promotion and intervention, and advance or restrict equal rights and inclusion with implications for student mental health and wellbeing (Corrigan et al., 2004; Garraza et al., 2015; McDowell et al., 2020; Organ et al., 2016; Walrath et al., 2015). Higher education institutions have a tremendous opportunity, at a critical developmental stage when many mental health disorders are first emerging, to prevent the onset and evolution of mental health disorders, reduce the 10-year span it typically takes to receive treatment, and close treatment gaps (Kessler, Berglund, et al., 2005; Lipson, Lattie, et al., 2019; Wang et al., 2002). This is not the burden of higher education alone; much can be done to prepare and equip schools to respond more effectively. Federal, state, and local policy makers, as well as private funders and companies, all have a role to play in: 1) generating funds to support college student mental health and 2) advancing health-promoting policies that protect student mental health and that support investment in student mental health by colleges.

Study 2 (Chapter 3)

Study 2 (Chapter 3) examined one area of institutional practice that impacts student college experiences and wellbeing but has received almost no attention in mental health research or practice guidelines. Campus police are increasingly ubiquitous in higher education and they are regularly the first or primary responders to students in mental health distress (Kase et al., 2016; Lanser et al., 2021; Margolis & Shtull, 2012; Reaves, 2015). Yet, no representative research has been conducted to understand the prevalence of student encounters with police or the nature of these interactions (Jenkins et al., 2020; Lanser et al., 2021). I, therefore, conducted a large, representative survey at a large Midwestern university to investigate how policing shapes student experiences and to shed light on student views on campus police presence and policy. The research was purely descriptive but added to the existing literature by producing representative prevalence rates from a diverse sample of students with a range of racial/ethnic

134

and gender identities, taking an intersectional approach, and capturing student perspectives on institutional public safety policy. Overall, half of the participants reported encounters with police (any kind) while a student. Of these students, 15% had negative interactions and 24% experienced unfair treatment. This varied across groups such that between 32 and 56% of TGGD students of every racial group reported negative interactions and unfair treatment. This is concerning given growing evidence that negative and unfair police interactions increase depressive symptoms, suicidal ideation, and drug use (Dennison & Finkeldey, 2021; Turney, 2020). Attitudes about police presence were mixed. Most students agreed that a police presence on campus makes them feel safe, but few (37%) felt armed campus police presence was good for their mental health, and most (73%) felt uncomfortable with police responding to them in a mental health crisis. Almost 60% of students indicated one or more problems with campus police and support for police-related policy changes was widespread. For example, 85% of students expressed support for increased training, 70% for redirecting funds from policing to invest in community resources (e.g., counseling services, multicultural student affairs/services, etc.), 52% for disarming officers on campus, and 40% for abolition.

This study revealed significant differences across race and gender with general trends suggesting that underrepresented racial minorities and TGGD students reported more police contact, more negative and unfair treatment by police, and negative impacts on academics. These students were less likely to feel campus police presence makes them feel safe and was good for their mental health and more likely to be uncomfortable with police responding in mental health crises. They endorsed more concerns as problems and greater support for policy change. The data support more study of the impact of policing on college students' mental health and evaluation of whether shifts in campus public safety investments and practices, which are well supported by students, are avenues for enhancing mental health equity, especially for underrepresented racial minorities and TGGD students. My data show that police interaction is common but felt to be negative and unfair to many students and of great concern, providing initial representative evidence from one institution that it has perhaps been an oversight to neglect this area of institutional practice and policy when looking for avenues for promoting student mental health and preventing mental health problems. Future research is needed to confirm these patterns across different types of institutions. However, the near ubiquitous discomfort with police response to mental health crises among students most likely to experience

such crises and the high level of support across the student body for alternative responses suggest the need for institutions to reconsider how they respond at this vulnerable moment.

Study 3 (Chapter 4)

Like Study 2, Study 3 (Chapter 4) advanced understanding of an understudied population facing some of the most significant mental health inequities in higher education: TGGD students (Lipson, Raifman, et al., 2019; Oswalt & Lederer, 2017). Study 3, however, investigated an area of institutional policy that has received more empirical attention in higher education and K-12 settings: policies to support the inclusion of TGGD students (Day, Ioverno, & Russell, 2019; Goldberg et al., 2018; Kull et al., 2016; Pitcher et al., 2018; Sausa, 2005; Seelman, 2014b; Toomey et al., 2012; Woodford et al., 2017). Thus, this research probed more deeply into how personal awareness of such policies interacts with their visibility to shape psychosocial inequities between TGGD and cisgender students. With representative survey data I collected from 15,579 students at 28 colleges and universities, I examined personal awareness and visibility of inclusive nondiscrimination policies, gender inclusive restrooms, and pronoun options, and examined their correlations with sense of belonging and suicidality. Multivariable results revealed higher visibility of inclusive nondiscrimination policies, gender inclusive restrooms, and pronoun options is associated with reduced psychosocial inequities for TGGD college students. Awareness of such policies also has benefits for cisgender students. My findings advance the field by highlighting the importance of visible supportive school policies, an unmeasured construct at colleges and universities.

Public Health Implications

Findings from this dissertation have many implications for realizing a more 1) evidence-informed, 2) policy-focused, 3) equity-minded approach to college student mental health. In the remaining sections, I will discuss implications and next steps for achieving each of these three aims. The work suggests that bridging research and practice is key to a more evidence-informed approach and illuminates several avenues for closing the research-practice gap. In support of this goal, I will integrate research and practice implications in this chapter. The dissertation also identifies that a more policy-focused approach will emerge from addressing neglected levels and interactions across the socioecological model. Finally, it indicates that a more equity-minded approach requires specifically focusing on populations facing inequities and reducing the inequities they face.

An Evidence-Informed Approach: Bridge Research and Practice

My review of the intervention literature revealed a significant set of effective, well evaluated public health interventions for promoting mental health and preventing mental health problems in college students. However, in practice, interventions with weaker evaluations and less evidence of effectiveness (e.g., gatekeeper training, psychoeducation) have often received the greatest uptake. Indeed, there has been little implementation and scaling of interventions with the strongest evidence (e.g., mindfulness interventions with supervised skill practice). Simultaneously, my work on policing shows that institutions of higher education are making large and growing investments in campus law enforcement as well as instating task forces to assess and revise college public safety practices. However, they are doing so without representative data or comprehensive understanding of student experiences and perspectives and little empirical evidence on how these institutional investments and practices shape student outcomes. Several strategies may foster a more evidence-informed approach to student mental health by bridging research and practice in higher education. Informed by the process of completing this dissertation, I suggest efforts to: 1) organize the evidence-base and make it accessible to higher education practitioners, policy makers, administrators, students, and other stakeholders; 2) strengthen the evidence-base by more closely aligning it with institutional goals and priorities and by making it more responsive to the evolving needs voiced by students; and 3) consider and study implementation contexts and practices.

Make The Evidence-Base Clearer and More Accessible. Several findings from my intervention literature review indicate a need to give college decision-makers easier access to a better organized evidence base. Study 1 (Chapter 2) showed that the rapidly expanding set of intervention evaluations relevant to addressing student mental health are dispersed across a wide range of fields and journals. There is inconsistency in what outcomes are targeted and how they are measured. For example, numerous interventions focus on addressing stigma, but the extent to which stigma shapes the most important outcomes of help-seeking, symptom levels, and positive mental health for those with diagnoses is contested or unknown with college students (Eisenberg, Downs, et al., 2009; Golberstein et al., 2009; Gulliver et al., 2012; Han et al., 2006). Many interventions target mental health symptoms, psychological distress, and psychosocial wellbeing, but there is significant variation in how these outcomes are assessed. In addition, there is a lack of standard terminology and shared understanding of concepts. For example, what

constitutes peer support or mentoring, and the terms used to describe these types of programs, varies widely. Beyond inconsistency in measurement, outcomes, and terminology, there is variation in study designs, a lack of longer-term outcome measurement, and poor reporting of study samples. These factors make it challenging to identify and access the evidence-base and compare findings across evaluations.

Creating a best-practices registry might be one solution for addressing these issues. A registry of interventions to improve college student mental health could be informed by existing registries. First, Blueprints for Healthy Youth Development (www.blueprintsprograms.org), which reviews a wide range of social, educational, and health-related programs for children, adolescents, and young adults. Second, CollegeAIM, which rates alcohol interventions (programs and policies) in postsecondary settings in terms of evidence of effectiveness and cost of implementation. CollegeAIM is sponsored by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and was created by a panel of research experts. The registry differentiates between individual-level and environment-level strategies and includes over 60 interventions.

A registry could help drive more consistency in outcome measurement and shared understanding of terminology. It could set standards for levels of evidence, motivating use of methodologically strong research designs. It could require reporting sample characteristics and recommend longer-term outcome measurement. Given how rapidly interventions are being developed and tested, it would take considerable staffing and investment to create and maintain a registry, but such a tool would contribute significantly to organizing the evidence-base and making it accessible to higher education stakeholders. Interventions that are universally appropriate across or within schools are unlikely due to significant variation in institutional and student body characteristics. Therefore, ideally, experts would be available to help college and university administrators, leaders, policy makers, and practitioners interpret and understand which interventions from the registry would be most appropriate for their students and setting.

Generate Evidence Aligned with Institutional Goals and Priorities. In addition to strategies to enhance use of the existing evidence-base, increasing the supply of high-quality studies focused on outcomes of greatest interest to colleges, universities, and students could help bridge research and practice in higher education. For example, institutions of higher education are primarily dedicated to student academic outcomes. Some even debate higher educations' role in and responsibility for addressing student mental health (National Academies of Sciences

138

Engineering & Medicine, 2021). However, there is evidence that student mental health shapes academic outcomes of interest to colleges and universities—graduation and retention rates, enrollment discontinuity, academic success, career trajectories, and more (Arria et al., 2013; Billingsley & Hurd, 2019; Bruffaerts et al., 2018; De Luca et al., 2016; Eisenberg, Golberstein, et al., 2009). Research demonstrating the cost-effectiveness of mental health interventions and joint benefits to student mental health and academic outcomes would be of interest to higher education stakeholders and likely facilitate investment in these interventions. Demonstrating the effectiveness of prevention programs is a consistent challenge in public health, particularly when the benefits may be realized long-term, as is the case with student mental health, but there are some programs, such as belonging interventions, which are beginning to show benefits for mental health and academic outcomes in the short- and long-term (Brady et al., 2020; Marksteiner et al., 2019; O'Connell et al., 2009; Stephens et al., 2014; Walton & Cohen, 2011). Demonstrating the cost-effectiveness of such interventions through robust measurement of both outcomes could facilitate their adoption in higher education.

Generate Evidence Responsive to Student Concerns and Needs. Expanding the evidence-base to align more closely with student concerns, priorities, and needs could also enhance the use of research in practice. We are amid a tumultuous period in global and U.S. history. With the COVID-19 pandemic, recent political unrest, and other societal issues, the challenges facing today's college students and taxing their mental health are rapidly evolving (National Academies of Sciences Engineering & Medicine, 2021; Office of the Surgeon General, 2021b). Researchers must move quickly and efficiently to address the issues most relevant to students' lives. Evidence suggests that student advocacy is a powerful driver of change in higher education (Cole & Heinecke, 2020; Davis, Harris, Stokes, & Harper, 2019; Goldberg et al., 2020; Wheatle & Commodore, 2019). Institutions face tremendous pressure to shift practice in response to student demands. Timely, relevant research that is based upon students' stated priorities would enhance the use of evidence as colleges and universities consider policy and institutional change. Indeed, a strength of this dissertation is its timely response to student concerns and policies that are currently being debated in higher education. In qualitative research, Black college students have clearly, strongly, and repeatedly voiced concerns that "encounters with campus police produce injury (albeit not physical) and rouse an unhealthy sense of racial battle fatigue facilitated by officers' unfounded questioning, presumptions of

139

guilt, and embodiments of whiteness" (Jenkins et al., 2020, p. 2; Smith, Allen, & Danley, 2007). Likewise, TGGD students have voiced the need for and value of inclusive nondiscrimination policies, gender inclusive restrooms, and pronoun options (Goldberg et al., 2018). Black students, TGGD students, and others have advocated for change within their institutions, and schools have responded (Goldberg et al., 2020; Wheatle & Commodore, 2019). Yet, there is sparse quantitative research on these topics to guide practice. Through my dissertation, I mobilized quickly to address topics that are voiced by students as important and are currently under revision in institutional practice.

Studies 2 and 3 in this dissertation demonstrated that strong population survey research in higher education, which assesses and adapts to cover new priority topics efficiently, can aid in generating timely research that is responsive to student concerns. Study 2 (Chapter 3) illustrated the value of ongoing survey research within one institution, such that the survey instrument and researchers garner respect and trust from institutional leaders. This type of survey infrastructure and trust by top institutional leaders facilitated the timely distribution of the Study 2 survey instrument to the majority of the student body. Study 3 (Chapter 4) illustrated the value of population survey research that is consistent across multiple institutions. Being able to rapidly obtain representative data from enough schools allowed for investigating the impact of a school-level variable, TGGD-inclusion policy visibility, currently of interest to students (Goldberg et al., 2018). Researchers and funders should invest in representative, multi-institution surveys, take steps to share the data in ways that motivate institutional participation, and adapt surveys over time to address issues of greatest concern to students. Institutions should enroll students in studies consistently over time not only to understand their own students' current needs but also to enable research that illuminates the impact of currently debated institutional policies.

Study and Consider Implementation Context and Practice. This dissertation also suggests the value of studying and considering the implementation of mental health interventions in higher education. My literature review revealed a strong focus on intervention effectiveness but minimal formal study of implementation and its barriers and facilitators (Cimini & Rivero, 2018; Conley et al., 2015, 2016; Lattie et al., 2019; McQuillin et al., 2020; Rith-Najarian et al., 2019). The few studies to consider implementation identified considerable barriers and challenges in the higher education setting (Rash, 2008). Public health impact comes from intervention reach—the number of people who participate or are exposed to the intervention—

multiplied by the per-person effectiveness among those who are reached. Achieving a wide reach is regularly a challenge that colleges need to solve. For example, many digital health programs have demonstrated good efficacy in trials with motivated or compensated participants, but it is difficult to reach large numbers of people with these programs in real settings (Lattie et al., 2019). Furthermore, at the intersection of reach and effectiveness is engagement, which can be thought of as the quantity and quality of participation or exposure to an intervention. To truly improve student mental health, colleges and universities not only need effective interventions, but ones that will engage students (Conley et al., 2017). Research and evaluation on student mental health must pay more attention to understanding and improving how to reach and engage students at a large scale, with attention to the diversity of student characteristics and institution types.

My dissertation also identifies other aspects of implementation as relevant to shaping student outcomes. For example, Study 3 (Chapter 4) suggests that the degree to which students are aware of policies (individually and across the student body), perhaps a result of how they are promoted to students, shapes the policies' impact on student outcomes. Greater understanding of how implementation shapes intervention impact will improve the adoption of interventions in practice. Likewise, improved understanding of implementation context will help researchers design and evaluate interventions that can be practically and effectively adopted in the higher education setting.

A Policy-Focused Approach: Address Neglected Levels and Interactions Across the Socioecological Model

Another overarching theme of this dissertation research is that there are opportunities to intervene across every level of the socioecological model in higher education to promote student mental health. My research suggests that institutions of higher education can, should, and do influence student mental health by shaping individual, interpersonal, community, institutional and policy factors. For example, Study 2 (Chapter 3) explored how institutional investments in the size, scope, and armament of campus police forces may shape the frequency and quality of student interactions with the police, potentially resulting in mental health distress, especially for SOC and TGGD students. Study 3 (Chapter 4) discussed and shed further light on how TGGD-specific institutional policies may shape community norms and awareness that influence levels of interpersonal discrimination, bullying, harassment, and misgendering, which ultimately impact

mental health outcomes such as suicidal ideation and sense of belonging. And yet, the dissertation also points out the need for further research and practice to fully understand and harness schools' intervention opportunities at, and across, each level. Public health research indicates that a multilevel intervention is the most effective for improving population health (National Academies of Sciences, Engineering, 2020; Sallis et al., 2008). Higher education presents a remarkable opportunity to strategically intervene in a coordinated manner across all levels to shape student lives. However, in reviewing my dissertation one may conclude: few multi-level interventions have been developed or tested; there is disproportionate focus on micro-levels of intervention and neglect of institutional-level interventions; levels of measurement in evaluations need to be clarified and strengthened; and interactions across levels of influence warrant further study. Progress in these arenas will facilitate a more policy-focused approach to student mental health.

Studies 1-3 (Chapters 2-4) all illustrate the extent to which research and practice in higher education has predominantly focused on individual-level interventions for student mental health and neglected to fully consider, develop, or evaluate institutional interventions. This pattern parallels trends outside of higher education where mental health prevention and intervention has focused on educating, training, and supporting individuals to impact their knowledge, attitudes, symptoms, coping, and help-seeking (O'Connell et al., 2009). In national reports, federal funders, scientists, and others are calling for greater attention to upstream, structural, and environmental interventions (Eccles & Roeser, 2011; National Academies of Sciences Engineering & Medicine, 2021; Office of the Surgeon General, 2021b; Palmer et al., 2019). Focus on individual-level intervention over institutional intervention likely also stems from the challenges of designing and rigorously evaluating institutional interventions. Because the unit of analysis is a large segment of a college community or even an entire college population in many cases, an adequately powered trial requires many colleges or at least many units within individual campuses. A simple pre-post analysis of outcomes for one campus is unlikely to be credible unless the changes in outcomes are large and specific to the intervention targets. Given these challenges, a concerted effort by researchers and colleges is needed along with investment by funders to conduct large-scale evaluations that include adequate control groups. Where RCTs are not feasible, quasi-experimental designs such as difference-in-difference studies may help shed light on the impact of institutional policies and practices (Dimick & Ryan, 2014; Goodman-Bacon et al., 2018;

Wing, Simon, & Bello-gomez, 2018). The feasibility of such designs is enhanced by the presence of population-survey studies such as the American College Health Association National College Health Assessment and the Healthy Minds Study. Ideally, however, more institutions will participate repeatedly over time in these assessments. Such investments and efforts on the part of colleges, researchers, and funders is critical for a more evidence-informed, policy-focused approach to student mental health.

In addition to investigating institutional-level interventions, there is an opportunity to strengthen evaluations by measuring outcomes at the various possible levels of intervention impact. For example, my review of the intervention literature revealed that even interventions designed for community-level impact are often only assessed by measuring individual outcomes (Lipson, 2014). Gatekeeper programs have the potential to shift community norms around outcomes including recognizing and responding to students and peers in psychological distress, seeking help, utilizing campus support services, as well as to reduce the prevalence of untreated symptoms at the community-level. Yet, they have been almost exclusively evaluated for their impact on trainee knowledge and skills (Lipson, 2014). Anti-stigma programs in higher education are another category of intervention almost entirely evaluated for impact on an individual level (Yamaguchi et al., 2013). At this level, they have shown weak effects (Clement et al., 2013; Mehta et al., 2015; Thornicroft et al., 2016; Yamaguchi et al., 2013). Stigma, however, is acknowledged to operate at individual, interpersonal, community, and structural levels (Corrigan et al., 2004; Hatzenbuehler, Phelan, & Link, 2013; White Hughto et al., 2015); growing research outside of higher education has demonstrated the impact of community and structural stigma on mental health outcomes and healthcare utilization (Downing & Przedworski, 2018; Goldenberg et al., 2020b, 2020a; Hatzenbuehler, Bellatorre, et al., 2014). Future research might conceive of and evaluate higher education interventions for impact on community- and structural-level stigma.

Study 3 (Chapter 4) demonstrated the impact of a community-level construct, previously unmeasured in higher education: policy visibility across the student body. Policy visibility is a community-level measure of policy awareness. Finding that personal awareness and policy visibility interact to influence student mental health outcomes and equity, suggests value to studying and measuring the construct at both levels. Relatedly, the significant proportion of students who reported problems with campus police presence and support for policy change in

Study 2 (Chapter 3), without necessarily having any personal encounters with police, could suggest that interpersonal and community dynamics are shaping students' perspectives. Contemporary ecological models emphasize that key to understanding health impacts of social contexts is the "construction that participants…make of it" (Burke, Joseph, Pasick, & Barker, 2009; Kingry-Westergaard & Kelly, 1990; Richard, Gauvin, & Raine, 2011, p.310). Literature on adolescents shows that young people co-construct reality with friends (Steinberg, 2014). Are students influenced by the experiences of their peers and the communities and individuals with which they identify? How might the frequency and quality of police interactions within one's communities shape mental health in addition to or beyond personal experiences? More research is needed to understand what community-level variables and constructs shape student mental health. Then, interventions could be designed and evaluated for their impact on these community-level factors. The worthiness of such endeavors is supported by effective community-wide interventions that have shifted community norms, increased referrals and help-seeking, and reduced suicidal behavior, for example, in K-12 settings and the Air Force (discussed in Chapter 2) (AFMOA/SGZP, 2001; Ahern et al., 2018; Aseltine & DeMartino, 2004; Ciffone, 2007; Knox et al., 2003, 2010; Schilling et al., 2014; Wasserman et al., 2015; Wyman et al., 2010). Colleges and universities may be more open, dispersed communities than K-12 schools or the Air Force, but there are likely untapped and unmeasured opportunities to improve student mental health through shifting community norms and behaviors in residence halls, departments, and academic programs.

In addition to identifying intervention opportunities at all levels of the socioecological model and the need and value for more research and measurement across more macro levels in higher education, this dissertation lends support for better attending to interaction across levels of influence. The importance of understanding the complex and dynamic interactions between levels of influence is an underappreciated aspect of socioecological theory (Hawe et al., 2009; McLaren & Hawe, 2005). As mentioned above, my dissertation research on personal awareness and visibility of TGGD-inclusion policies powerfully illustrates the importance of considering how levels of influence interact to shape student outcomes. My findings suggest that being personally aware of inclusion policies may have different implications for cisgender and TGGD students in contexts where their peers are, and are not, also aware of these inclusion policies. My review of the existing literature on college student experiences with policing reveals that students

and researchers conceive of policing as influencing students via interpersonal, community, and structural mechanisms (Dizon, 2021; Jenkins et al., 2020; Mills, 2020). However, research has not clearly delineated or measured these levels of influence or considered how they interact to shape student outcomes. Doing so will aid in the design of effective interventions to improve mental health outcomes. In calling for policy change at multiple levels – e.g., providing anti-racism or mental health training to existing officers to improve interpersonal interactions as well as shifting resources to invest in community support services and decrease or abolish the presence of police – students themselves are recognizing the need for multilevel intervention.

A decade ago, Richard and colleagues (2011) conducted a critical review of the use of ecological models in health promotion between 1990-2010 and concluded that "more fully operationalizing the ecological approach may be key to developing a more thorough and nuanced understanding of complex health problems and means of addressing them to promote the public's health" (Richard et al., 2011, p. 322). My dissertation comes to the same conclusion and suggests that more fully operationalizing the ecological approach is key to developing and identifying means to address the public health problem of student mental health. Colleges and universities are dynamic, complex systems with mutual interactions across their components; they have a collective capacity greater than the sum of their parts (Hawe et al., 2009). For interventions to seize their full potential to positively shape and protect student mental health, we must understand and harness the dynamic properties, feedback loops, social processes, and collective capacities of these institutions (Hawe et al., 2009). Developing and testing multi-level interventions, expanding focus on community and institutional-level interventions, clarifying and strengthening levels of measurement in evaluations, and further studying interactions across levels of influence will lead to a more policy-focused approach and advance progress for student mental health.

An Equity-Minded Approach: Focus on Populations Facing Mental Health Inequities

Mental health inequities are significant at colleges and universities and have not declined over the last decade even as institutions have invested in better supporting student mental health (Brittain & Dinger, 2015; Chen et al., 2019; Lipson et al., 2018, 2022; Liu et al., 2020). TGGD students face symptoms of mental health disorders and suicidality at 2-4 times of the rate of their cisgender peers (Lipson, Raifman, et al., 2019). SOC are significantly less likely than White students to receive mental health treatment (Lipson et al., 2018). There are also institutional

inequities: community colleges and 2-year institutions have fewer resources to invest in student mental health than 4-year schools (Eisenberg et al., 2016; Katz & Davison, 2014; Lipson, Phillips, et al., 2021). Current efforts have failed to address inequities in several ways. As revealed in Study 1 (Chapter 2), intervention evaluations have done a poor job of documenting their samples along important axes of student identity that relate to mental health inequities such as race, gender identity, sexual identity, socioeconomic status, country of origin (international students vs. not), and documentation status (Conley, 2015; Conley et al., 2015, 2017; Yamaguchi et al., 2013). Where sample characteristics have been identified, the research has largely been conducted with White females at predominantly White 4-year institutions (Conley et al., 2015, 2016; Davies et al., 2014; Farrer et al., 2013; Regehr et al., 2013; Rith-Najarian et al., 2019; Yamaguchi et al., 2013). In addition to inadequately addressing for whom existing interventions work and testing them with diverse samples, the literature reviews conducted for Studies 2 and 3 (Chapter 3 + 4) demonstrate that existing research has seldom measured mental health inequities as an outcome. For example, studies have focused on the experience of TGGD students or Black students. This research is tremendously important, but it fails to shed light on whether policies or interventions hold the potential for reducing inequities. The lack of focus on reducing inequities as an outcome of interest has likely shaped what practices, policies, and interventions have received attention and been neglected in the research literature and practice guidelines. For example, significant and growing evidence from outside of higher education points to policing as an area of practice and policy likely shaping mental health inequities (Bor, Venkataramani, Williams, & Tsai, 2018; Devylder et al., 2018; Devylder et al., 2017; Geller et al., 2014; Turney, 2021); yet policing policy and practice is rarely part of dialogue or efforts to improve college student mental health (Jed Foundation, 2019; Steve Fund & Jed Foundation, n.d.; Wesley, 2019).

This dissertation indicates that research is needed to better understand for whom existing interventions are effective, with greater attention to what works in resource-limited contexts and for populations facing the greatest mental health inequities. Public health theory and research demonstrate that interventions must be designed and evaluated specifically for impact on populations facing inequities; population interventions may improve health overall but exacerbate disparities by consistently leaving behind or having the least impact on "vulnerable populations" facing the greatest inequities (Frohlich & Potvin, 2008). While limited research has demonstrated some similar intervention effects across race (Mattanah et al., 2012; Stice et al.,

146

2014), my work on policing and TGGD-inclusion policies begins to illustrate differential impacts of institutional policy across race and gender identity. Study 2 (Chapter 3) additionally highlights the importance of an intersectional approach that not only considers race or gender identity or another axis along which students experience marginalization but explores how interventions and institutional policy and practice shape the experiences of students with intersecting identities. Researchers and practitioners need to move beyond separately classifying "who has it worse" by race, gender, sexuality, SES, or international student status, and move to considering how racist, cissexist, classist, homophobic, ablest systems interact and intersect to shape student lives and outcomes and can be shifted to enhance equity.

Throughout, this dissertation speaks to and provides evidence of the need for more inclusive forms of measurement of student identity (e.g., moving beyond binary measures of sex to capture and examine diversity across the full range of gender identities) and more nuanced work understanding differences across and within diverse and marginalized populations. For example, Study 2 (Chapter 3) contributes to past work on students and policing by: 1) including a diverse, representative sample of URM students; 2) including Latinx, Arab, American Indian, Filipino, and Multiracial students when past research has mostly only included Black students; and 3) illustrating the importance of separately considering the experiences and perspectives of Asian, White, and underrepresented racial minority (URM) students when past work has excluded Asians or grouped Asian and URM students together. It advances past research by examining the intersection of gender and race/ethnicity. However, the need to group all TGGD and URM students into broad categories is a noted limitation. The dissertation highlights opportunities for future research to better understand the experiences of diverse TGGD and racial/ethnic minority populations. As has been a theme of this conclusion chapter, population survey research can contribute to this needed research. Higher education is increasingly diverse (Espinosa et al., 2019); large-scale population surveys in higher education provide valuable data on populations not represented in large enough numbers in other studies to get full consideration and analyses. For example, such large-scale surveying in Study 2 (Chapter 3) enabled examining the rarely studied experiences of TGGD students and, even more seldomly considered, the experiences of TGGD URM students (Lett et al., 2020; Lipson, Raifman, et al., 2019; Patterson et al., 2017). Large-scale population survey research in higher education presents an opportunity to better understand the health and wellbeing of populations facing inequities and populations

that have received inadequate attention in research and scholarship (e.g., TGGD URM, Arab and Muslim populations) during a critical time of development and in a setting where there are numerous opportunities to intervene. Large-scale population research across multiple institutions also facilitates understanding of diverse institutional types and widely varying student bodies.

Conclusion

As the writing of this dissertation came to a close, the Surgeon General of the United States issued a rare advisory warning of a "youth mental health crisis" (Office of the Surgeon General, 2021b). The advisory outlined the degree to which mental health problems were on the rise pre-pandemic and appear to be exacerbated by it (Office of the Surgeon General, 2021b). We are still gaining a full understanding of how the ongoing pandemic is impacting the mental health of current college students, but today's "youth in crisis"—experiencing escalating levels of depression, anxiety, and suicidality—are the next generation of college students (Office of the Surgeon General, 2021b; Panchal et al., 2020; Racine et al., 2021). Student mental health is a public health challenge for colleges and universities that will not go away any time soon. In addition, the pandemic has exacerbated health and economic inequities and limited the resources many institutions of higher education have available to invest in student mental health (Hoyt et al., 2020; National Academies of Sciences Engineering & Medicine, 2021; Office of the Surgeon General, 2021b). A more evidence-based, policy-focused, equity-minded approach is urgently needed to ensure the most effective use of limited funds, identify population approaches to cost-efficiently improve outcomes at scale, and address widening mental health inequities.

As the Surgeon General noted, "coming out of the COVID-19 pandemic, we have an unprecedented opportunity as a country to rebuild in a way that refocuses our identity and common values, puts people first, and strengthens our connections to each other" (Office of the Surgeon General, 2021, p. 4). His advisory highlights that moving beyond individual change to "systemic change" is essential and emphasizes that schools that "surround young people and shape their day-to-day lives…have an important role to play" (Office of the Surgeon General, 2021, p.5). This dissertation sheds light on next steps for researchers, policy makers, practitioners, and students in higher education who must collaborate to bridge research and practice, pursue a more ecological and intersectional approach to research and intervention, and strategically and powerfully invest in advancing mental health equity. It suggests that TGGD and racial minority students will likely benefit from changes to institutional policy and practice that

are both specifically designed to foster their inclusion and are widely promoted and enforced across the student body. More work is needed to fully develop and evaluate multilevel interventions that change community norms and practices through comprehensive implementation across schools and colleges. Yet, the disruption of the pandemic makes this an ideal moment for transforming postsecondary institutions into health-promoting environments where all members of their rapidly diversifying student population can thrive (Hoagwood & Kelleher, 2020; National Academies of Sciences Engineering & Medicine, 2021). Rigorous and comprehensive pursuit of solutions to address college student mental health and mental health equity is critical and urgent and will greatly benefit students (66% of U.S. high school graduates), schools, and society (McFarland et al., 2018).

BIBLIOGRAPHY

Abbafati, C., Abbas, K. M., Abbasi-Kangevari, M., Abd-Allah, F., Abdelalim, A., Abdollahi, M., … Murray, C. J. L. (2020). Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, *396*(10258), 1204–1222. https://doi.org/10.1016/S0140-6736(20)30925-9

ACHA. (2020). *Wellness Coaching Wellness Coaching Scope of Practice: What Is Wellness Coaching?* Silver Spring, MD.

Active Minds Inc. (2017). Recommendations for Leave of Absence and Return from Absence Policies for Mental Health Concerns at Higher Education Institutions. Retrieved April 15, 2021, from https://www.activeminds.org/wp-content/uploads/2018/04/ActiveMinds_PositionStatement_LeaveofAbsence_May2017.pdf

Adams, D. R., Meyers, S. A., & Beidas, R. S. (2016). The relationship between financial strain, perceived stress, psychological symptoms, and academic and social integration in undergraduate students. *Journal of American College Health*, *64*(5), 362–370. https://doi.org/10.1080/07448481.2016.1154559

AFMOA/SGZP. (2001). The Air Force suicide prevention program. *Air Force Pamphlet*, 44–160.

Ahern, S., Burke, L. A., McElroy, B., Corcoran, P., McMahon, E. M., Keeley, H., … Wasserman, D. (2018). A cost-effectiveness analysis of school-based suicide prevention programmes. *European Child and Adolescent Psychiatry*, *27*(10), 1295–1304. https://doi.org/10.1007/s00787-018-1120-5

Alang, S., McAlpine, D. D., & Hardeman, R. (2020). Police Brutality and Mistrust in Medical Institutions. *Journal of Racial and Ethnic Health Disparities*, *7*(4), 760–768. https://doi.org/10.1007/s40615-020-00706-w

Alegría, M., Canino, G., Rios, R., Vera, M., Calderon, J., Rusch, D., & Ortega, A. N. (2002). Inequalities in use of specialty mental health services among Latinos, African Americans, and non-Latino whites. *Psychiatric Services*, *53*(12), 1547–1555. https://doi.org/10.1176/appi.ps.53.12.1547

Alegría, M., Greif Green, J., McLaughlin, K., & Loder, S. (2015). *Disparities in child and adolescent mental health and mental health services in the U.S.* New York, NY.

Alexander, A. (2021). Why Freedom Dreams. Retrieved December 13, 2021, from https://www.freedomdreamspodcast.com/our-team

Allen, H. K., Lilly, F., Green, K. M., Zanjani, F., Vincent, K. B., & Arria, A. M. (2020). Graduate Student Burnout: Substance Use, Mental Health, and the Moderating Role of Advisor Satisfaction. *International Journal of Mental Health and Addiction*. https://doi.org/10.1007/s11469-020-00431-9

American College Health Association, & Healthy Minds Study. (2020). *The Impact of COVID-19 on College Student Well-Being*. Ann Arbor. Retrieved from https://healthymindsnetwork.org/wp-content/uploads/2020/07/Healthy_Minds_NCHA_COVID_Survey_Report_FINAL.pdf

American Council on Education. (2020). Mental health, higher education, and COVID-19. Retrieved October 8, 2020, from https://www.acenet.edu/Documents/Mental-Health-Higher-Education-Covid-19.pdf

American Indian Policy Institute. (2021). Tribal Digital Divide: Policy Brief and Recommendations. Retrieved November 12, 2021, from https://aipi.asu.edu/sites/default/files/tribal_digital_divide_stimulus_bill_ advocacy_04032020.pdf%0A85

Anderman, E. M. (2002). School Effects on Psychological Outcomes During Adolescence. *Journal of Educational Psychology*, *94*(4), 795–809. https://doi.org/10.1037//0022-0663.94.4.795

Anderson, G. (2021, May 5). On Leave and on Their Own. *Inside Higher Ed*.

Anderson, R. E., McKenny, M. C., & Stevenson, H. C. (2019). EMBRace: Developing a Racial Socialization Intervention to Reduce Racial Stress and Enhance Racial Coping among Black Parents and Adolescents. *Family Process*, *58*(1), 53–67. https://doi.org/10.1111/famp.12412

Ando, M. (2011). An intervention program focused on self-understanding and interpersonal interactions to prevent psychosocial distress among Japanese university students. *Journal of Adolescence*, *34*(5), 929–940. https://doi.org/10.1016/j.adolescence.2010.12.003

Arria, A. M., Ph, D., Caldeira, K. M., Vincent, K. B., Winick, E. R., Baron, R. A., … Ph, D. (2013). Discontinuous College Enrollment: Associations With Substance Use and Mental Health. *Psychiatric Services*, *64*(2), 165–172. https://doi.org/10.1176/appi.ps.201200106

Ascend. (2020). Improving mental health of student parents: A framework for higher education. Retrieved March 6, 2021, from https://live-ascend-at-the-aspen-institute.pantheonsite.io/wp-content/uploads/2021/05/MentalHealthFramework_Final.pdf

Aseltine, R. H., & DeMartino, R. (2004). An Outcome Evaluation of the SOS Suicide Prevention Program. *American Journal of Public Health*, *94*(3), 446–451. https://doi.org/10.2105/AJPH.94.3.446

Aseltine, R. H., James, A., Schilling, E. A., & Glanovsky, J. (2007). Evaluating the SOS suicide prevention program: A replication and extension. *BMC Public Health*, *7*, 1–7. https://doi.org/10.1186/1471-2458-7-161

Ashwood, J. S., Stein, B. D., Briscombe, B., Sontag-padilla, L. M., Woodbridge, M. W., May, E., … Burnam, M. A. (2015). *Payoffs for California College Students and Taxpayers from Investing in Student Mental Health*. Califoria. Retrieved from www.rand.org

Astin, A. W. (1993). *What Matters in College: Four Critical Years Revisited*. San Francisco, CA: Jossey-Bass Publishers. https://doi.org/10.2307/1176821

Astin, J. A. (1997). Stress reduction through mindfulness meditation. *Psychotherapy and Psychosomatics*, *66*(2), 97–106. https://doi.org/10.1159/000289116

Auerbach, R. P., Alonso, J., Axinn, W. G., Cuijpers, P., Ebert, D. D., Green, J. G., … Bruffaerts, R. (2016). Mental disorders among college students in the World Health Organization World Mental Health Surveys. *Psychological Medicine*, *46*, 2955–2970. https://doi.org/10.1017/S0033291716001665

Badura, A. S., Millard, M., Peluso, E. A., & Ortman, N. (2000). Effects of peer education training on peer educators: Leadership, self-esteem, health knowledge, and health behaviors. *Journal of College Student Development*, *41*(5), 471–478.

Baik, C., Larcombe, W., & Brooker, A. (2019). How universities can enhance student mental wellbeing: the student perspective. *Higher Education Research and Development*, *38*(4), 674–687. https://doi.org/10.1080/07294360.2019.1576596

Baker, A., & Hambridge, J. (2002). Motivational interviewing: Enhancing engagement in treatment for mental health problems. *Behaviour Change*, *19*(3), 138–145. https://doi.org/10.1375/bech.19.3.138

Baker, C. N. (2008). Under-represented college students and extracurricular involvement: The effects of various student organizations on academic performance. *Social Psychology of Education*, *11*(3), 273–298. https://doi.org/10.1007/s11218-007-9050-y

Banks, K. H. (2015). African American College Students' Experience of Racial Discrimination and the Role of College Hassles. *Journal of College Student Development*, *51*(1), 23–34. https://doi.org/10.1353/csd.0.0115

Banks, K. H., Goswami, S., Goodwin, D., Petty, J., Bell, V., & Musa, I. (2021). Interrupting internalized racial oppression: A community based ACT intervention. *Journal of Contextual Behavioral Science*, *20*, 89–93. https://doi.org/10.1016/j.jcbs.2021.02.006

Bauer-Wolf, J. (2018, April 19). Flawed judgment in use of force against students? Only some college and university police officers are being trained to handle students' mental health crises, experts say. *Inside Higher Ed*. Retrieved from https://www.insidehighered.com/news/2018/04/19/campus-police-officers-only-some-cases-equipped-deal-mental-health-crises-experts

Bauman, D. (2014, September 21). Campus police aquire military weapons. *New York Times*. Retrieved from https://www.nytimes.com/2014/09/22/world/americas/campus-police-acquire-military-weapons.html

Bauman, G. L., Bustillos, L. T., Benisimon, E. M., Brown, M. C., & Bartee, R. (2005). *Achieving Equitable Educational Outcomes with All Students: The Institution's Roles and Responsibilities*. Washington, D.C.

Baumeister, R. F., & Leary, M. R. (1995). The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation. *Psychological Bulletin*, *117*(3), 497–529.

Bazelon Center for Mental Health Law. (2007). *Supporting Students: A Model Policy for Colleges and Universities*. Washington, D.C. Retrieved from http://www.bazelon.org/wp-content/uploads/2017/04/SupportingStudentsCampusMHPolicy.pdf

Beautrais, A. L. (2001). Effectiveness of barriers at suicide jumping sites: A case study. *Australian and New Zealand Journal of Psychiatry*, *35*(5), 557–562. https://doi.org/10.1046/j.1440-1614.2001.00951.x

Becerra, M., Wong, E., Jenkins, B. N., & Pressman, S. D. (2020). Does a Good Advisor a Day Keep the Doctor Away? How Advisor-Advisee Relationships are Associated with Psychological and Physical Well-Being among Graduate Students. *International Journal of Community Well-Being*. https://doi.org/10.1007/s42413-020-00087-2

Beck, J., Reuland, M., & Pope, L. (2020). *Behavioral Health Crisis Alternatives: Shifting from Police to Community Responses*.

Becker, C. B., Smith, L. M., & Ciao, A. C. (2005). Reducing eating disorder risk factors in sorority members: A randomized trial. *Behavior Therapy*, *36*(3), 245–253. https://doi.org/10.1016/S0005-7894(05)80073-5

Becker, K. D., Boustani, M., Gellatly, R., & Chorpita, B. F. (2018). Forty Years of Engagement Research in Children's Mental Health Services: Multidimensional Measurement and Practice Elements. *Journal of Clinical Child and Adolescent Psychology*, *47*(1), 1–23. https://doi.org/10.1080/15374416.2017.1326121

Beemyn, B., Curtis, B., & Davis, M. (2005). Transgender Issues on College Campuses. In R. L.

Sanlo (Ed.), *Gender identity and sexual orientation (New Directions for Student Services)* (pp. 49–60). San Francisco, CA: Jossey Bass.

Beemyn, B. G. (2005). Making Campuses More Inclusive of Transgender Students Making Campuses More Inclusive of Transgender Students. *Journal of Gay & Lesbian Issues in Education*, *3*(1), 77–87. https://doi.org/10.1300/J367v03n01

Beemyn, G. (2019). Get over the binary: The experiences of nonbinary trans college students. In Genny Beemyn (Ed.), *Trans people in higher education*. Albany, NY: SUNY Press.

Beeson, E. T., Ryding, R., Peterson, H. M., Ansell, K. L., Aideyan, B., & Whitney, J. M. (2019). RecoveryZone: A Pilot Study Evaluating the Outcomes of an Online Ally Training Program. *Journal of Student Affairs Research and Practice*, *56*(3), 284–297. https://doi.org/10.1080/19496591.2018.1474765

Bellamy, C., Schmutte, T., & Davidson, L. (2017). An update on the growing evidence base for peer support. *Mental Health and Social Inclusion*, *21*(3), 161–167. https://doi.org/10.1108/MHSI-03-2017-0014

Bellmore, A. D., Witkow, M. R., Graham, S., & Juvonen, J. (2004). Beyond the Individual: The Impact of Ethnic Context and Classroom Behavioral Norms on Victims' Adjustment. *Developmental Psychology*, *40*(6), 1159–1172. https://doi.org/10.1037/0012-1649.40.6.1159

Bensimon, E. M. (2007). The underestimated significance of practitioners knowledge in the scholarship on student success. *The Review of Higher Education*, *30*(4), 441–469. https://doi.org/10.1353/rhe.2007.0032

Benton, S. A., Robertson, J. M., Tseng, W. C., Newton, F. B., & Benton, S. L. (2003). Changes in counseling center client problems across 13 years. *Professional Psychology: Research and Practice*, *34*(1), 66–72. https://doi.org/10.1037/0735-7028.34.1.66

Bergen-Cico, D., Possemato, K., & Cheon, S. (2013). Examining the efficacy of a brief mindfulness-based stress reduction (brief MBSR) program on psychological health. *Journal of American College Health*, *61*(6), 348–360. https://doi.org/10.1080/07448481.2013.813853

Bernard, D. L., Lige, Q. M., Willis, H. A., Sosoo, E. E., & Neblett, E. W. (2017). Impostor phenomenon and mental health: The influence of racial discrimination and gender. *Journal of Counseling Psychology*, *64*(2), 155–166. https://doi.org/10.1037/cou0000197

Bernecker, S. L., Williams, J. J., Caporale-berkowitz, N. A., Wasil, A. R., & Constantino, M. J. (2020). Nonprofessional Peer Support to Improve Mental Health: Randomized Trial of a Scalable Web-Based Peer Counseling Course. *Journal of Medical Internet Research*, *22*(9), 1–22. https://doi.org/10.2196/17164

Berner, M. (2015). When students rally for 'diversity, what do they want? *The Chronicle of Higher Education*, *61*(27), A22.

Bettinger, E. P., & Baker, R. B. (2014). The Effects of Student Coaching: An Evaluation of a Randomized Experiment in Student Advising. *Educational Evaluation and Policy Analysis*, *36*(1), 3–19. https://doi.org/10.3102/0162373713500523

Bezrukova, K., Spell, C. S., Perry, J. L., & Jehn, K. A. (2016). A meta-analytical integration of over 40 years of research on diversity training evaluation. *Psychological Bulletin*, *142*(11), 1227–1274. https://doi.org/10.1037/bul0000067

Billingsley, J. T., & Hurd, N. M. (2019). Discrimination, mental health and academic performance among underrepresented college students: the role of extracurricular activities at predominantly white institutions. *Social Psychology of Education*, *22*(2), 421–446.

https://doi.org/10.1007/s11218-019-09484-8

Bilodeau, B. L. (2007). *Genderism: Transgender students, binary systems and higher education (Doctoral dissertation).*

Binning, K. R., Kaufmann, N., McGreevy, E. M., Fotuhi, O., Chen, S., Marshman, E., … Singh, C. (2020). Changing Social Contexts to Foster Equity in College Science Courses: An Ecological-Belonging Intervention. *Psychological Science*, *31*(9), 1059–1070. https://doi.org/10.1177/0956797620929984

Blanco, C., Okuda, M., Wright, C., Hasin, D. S., Grant, B. F., Liu, S. M., & Olfson, M. (2008). Mental Health of College Students and Their Non-college-attending Peers: Results from the National Epidemiological Study on Alcohol and Related Conditions. *Archives of General Psychiatry*, *65*(12), 1429. https://doi.org/10.1001/archpsyc.65.12.1429.Mental

Bloodgood, R. A., Short, J. G., Jackson, J. M., & Martindale, J. R. (2009). A change to pass/fail grading in the first two years at one medical school results in improved psychological well-being. *Academic Medicine*, *84*(5), 655–662. https://doi.org/10.1097/ACM.0b013e31819f6d78

Blume, A. W., Lovato, L. V., Thyken, B. N., & Denny, N. (2012). The relationship of microaggressions with alcohol use and anxiety among ethnic minority college students in a historically White institution. *Cultural Diversity and Ethnic Minority Psychology*, *18*(1), 45–54. https://doi.org/10.1037/a0025457

Boggs, G. L. (2013, November 2). Solutionaries are Today's Revolutionaries. *The Boggs Blog*. Retrieved from https://conversationsthatyouwillneverfinish.wordpress.com/2013/10/27/solutionaries-are-todays-revolutionaries-by-grace-lee-boggs/amp/

Bollen, K. A., & Hoyle, R. H. (1990). Percieved Cohesion: A Conceptual and Empirical Examination. *Social Forces*, *69*(2), 479–504. https://doi.org/10.2307/2579670

Bor, J., Venkataramani, A. S., Williams, D. R., & Tsai, A. C. (2018). Police killings and their spillover effects on the mental health of black Americans: a population-based, quasi-experimental study. *The Lancet*, *392*(10144), 302–310. https://doi.org/10.1016/S0140-6736(18)31130-9

Boustani, M. M., Frazier, S. L., Becker, K. D., Bechor, M., Dinizulu, S. M., Hedemann, E. R., … Pasalich, D. S. (2015). Common Elements of Adolescent Prevention Programs: Minimizing Burden While Maximizing Reach. *Administration and Policy in Mental Health and Mental Health Services Research*, *42*(2), 209–219. https://doi.org/10.1007/s10488-014-0541-9

Bowman, N. A. (2010a). College Diversity Experiences and Cognitive Development: A Meta-Analysis. *Review of Educational Research*, *80*(1), 4–33. https://doi.org/10.3102/0034654309352495

Bowman, N. A. (2010b). Disequilibrium and resolution: The nonlinear effects of diversity courses on well-being and orientations toward diversity. *Review of Higher Education*, *33*(4), 543–568. https://doi.org/10.1353/rhe.0.0172

Bowman, N. A. (2010c). The development of psychological well-being among first-year college students. *Journal of College Student Development*, *51*(2), 180–200. https://doi.org/10.1353/csd.0.0118

Brady, S. T., Cohen, G. L., Jarvis, S. N., & Walton, G. M. (2020). A brief social-belonging intervention in college improves adult outcomes for black Americans. *Science Advances*, *6*(18). https://doi.org/10.1126/sciadv.aay3689

Braithwaite, S. R., & Fincham, F. D. (2007). EPREP: Computer based prevention of relationship

dysfunction, depression and anxiety. *Journal of Social and Clinical Psychology*, *26*(5), 609–622. https://doi.org/10.1521/jscp.2007.26.5.609

Breslau, J., Lane, M., Sampson, N., & Kessler, R. C. (2008). Mental disorders and subsequent educational attainment in a US national sample. *Journal of Psychiatric Research*, *42*(9), 708–716. https://doi.org/10.1016/j.jpsychires.2008.01.016

Brett, C., Wang, K., Lowe, S. R., & White, M. A. (2020). Evaluation and Durability of a Curriculum-Based Intervention for Promoting Mental Health among Graduate Students. *American Journal of Health Education*, *51*(6), 350–359. https://doi.org/10.1080/19325037.2020.1822240

Brittain, D. R., & Dinger, M. K. (2015). Examination of health inequities among college stuents by sexual orientation identity and sex. *Journal of Public Health Research*, *4*(414), 1–6.

Britton, P. C., Patrick, H., Wenzel, A., & Williams, G. C. (2011). Integrating Motivational Interviewing and Self Determination Theory with Cognitive Behavioral Therapy to Prevent Suicide. *Cognitive Behavioral Practice*, *18*(1), 16–27.

Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.

Broockman, D., & Kalla, J. (2016). Durably reducing transphobia: A field experiment on door-to-door canvassing. *Science*, *3352*(6282), 81–87. https://doi.org/10.1007/s13398-014-0173-7.2

Brown, M. M., & Grumet, J. G. (2009). School-Based Suicide Prevention With African American Youth in an Urban Setting. *Professional Psychology: Research and Practice*, *40*(2), 111–117. https://doi.org/10.1037/a0012866

Brubaker, S. J., & Mancini, C. (2017). The Impact of Increased State Regulation of Campus Sexual Assault Practices: Perspectives of Campus Personnel. *Journal of School Violence*, *16*(3), 286–301. https://doi.org/10.1080/15388220.2017.1318577

Bruffaerts, R., Mortier, P., Kiekens, G., Auerbach, R. P., Cuijpers, P., Demyttenaere, K., … Kessler, R. C. (2018). Mental health problems in college freshmen: Prevalence and academic functioning. *Journal of Affective Disorders*, *225*(December 2016), 97–103. https://doi.org/10.1016/j.jad.2017.07.044

Bryan, A. E. B., & Arkowitz, H. (2015). Meta-Analysis of the Effects of Peer-Administered Psychosocial Interventions on Symptoms of Depression. *American Journal of Community Psychology*, *55*(3–4), 455–471. https://doi.org/10.1007/s10464-015-9718-y

Buchanan, J. L. (2012). Prevention of Depression in the College Student Population: A Review of the Literature. *Archives of Psychiatric Nursing*, *26*(1), 21–42. https://doi.org/10.1016/j.apnu.2011.03.003

Bughi, S. A., Sumcad, J., & Bughi, S. (2006). Effect of Brief Behavioral Intervention Program in Managing Stress in Medical Students from Two Southern California Universities. *Medical Education Online*, *11*(1), 4593. https://doi.org/10.3402/meo.v11i.4593

Burke, N. J., Joseph, G., Pasick, R. J., & Barker, J. C. (2009). Theorizing Social Context: Rethinking Behavioral Theory. *Health Education & Behavior*, *36*(50), 55S-70S. https://doi.org/10.3174/ajnr.A1256.Functional

Busby, D. R., Zheng, K., Eisenberg, D., Albucher, R. C., Favorite, T., Coryell, W., … King, C. A. (2019). Black college students at elevated risk for suicide: Barriers to mental health service utilization. *Journal of American College Health*, *0*(0), 1–7. https://doi.org/10.1080/07448481.2019.1674316

Butler, S. M., & Sheriff, N. (2020). *Innovative solutions to address the mental health crisis:*

Shifting away from police as first responders. Retrieved from https://www.brookings.edu/research/innovative-solutions-to-address-the-mental-health-crisis-shifting-away-from-police-as-first-responders/

Byrd, D. R., & McKinney, K. J. (2012). Individual, interpersonal, and institutional level factors associated with the mental health of college students. *Journal of American College Health*, *60*(3), 185–193. https://doi.org/10.1080/07448481.2011.584334

Byrd, W. C., Luney, L. A. T., Marie, J., & Sanders, K. N. (2021). Demanding Attention: An Exploration of Institutional Characteristics of Recent Student Demands. *Journal of Diversity in Higher Education*, *14*(1), 25–36. https://doi.org/10.1037/dhe0000133

Byrom, N., & Byrom, N. (2018). An evaluation of a peer support intervention for student mental health An evaluation of a peer support intervention for student mental health. *Journal of Mental Health*, *00*(00), 1–7. https://doi.org/10.1080/09638237.2018.1437605

Cabral, R. R., & Smith, T. B. (2011). Racial/Ethnic Matching of Clients and Therapists in Mental Health Services: A Meta-Analytic Review of Preferences, Perceptions, and Outcomes. *Journal of Counseling Psychology*, *58*(4), 537–554. https://doi.org/10.1037/a0025266

Cadaret, M. C., & Bennett, S. R. (2019). College Students' Reported Financial Stress and Its Relationship to Psychological Distress. *Journal of College Counseling*, *22*(3), 225–239. https://doi.org/10.1002/jocc.12139

Campbell, F., & Valera, P. (2020). "The Only Thing New is the Cameras": A Study of U.S. College Students' Perceptions of Police Violence on Social Media. *Journal of Black Studies*, *51*(7). https://doi.org/10.1177/0021934720935600

Cantor, C. H., & Hill, M. A. (1990). Suicide from river bridges. *Australian and New Zealand Journal of Psychiatry*, *24*(3), 377–380. https://doi.org/10.3109/00048679009077705

Capodilupo, C. M., Nadal, K. L., Corman, L., Hamit, S., Lyons, O. B., & Weinberg, A. (2010). The manifestation of gender microaggressions. In D. W. Sue (Ed.), *Microaggressions and marginality: Manifestation, dynamics, and impact* (pp. 193–216). John Wiley & Sons Inc.

Caporale-Berkowitz, N. A. (2020). Let's teach peer support skills to all college students: Here's how and why. *Journal of American College Health*, 1–5. https://doi.org/10.1080/07448481.2020.1841775

Carbado, D. W., Crenshaw, K. W., Mays, V. M., & Tomlinson, B. (2013). Intersectionality: Mapping the movements of a theory. *Du Bois Review*, *10*(2), 303–312. https://doi.org/10.1017/S1742058X13000349

Carey, K. B., Henson, J. M., Carey, M. P., & Maisto, S. A. (2007). Which Heavy Drinking College Students Benefit From a Brief Motivational Intervention? *Journal of Consulting and Clinical Psychology*, *75*(4), 663–669. https://doi.org/10.1037/0022-006X.75.4.663

Carey, K. B., Norris, A. L., Durney, S. E., Shepardson, R. L., & Carey, M. P. (2018). Mental Health Consequences of Sexual Assault among First-Year College Women. *American Journal of College Health*, *66*(6), 1–13. https://doi.org/10.1080/07448481.2018.1431915

Carney-Hall, K. C. (2008). Understanding current trends in family involvement. *New Directions for Student Services*, *2008*(122), 3–14. https://doi.org/10.1002/ss.271

Carroll, J. J., Mullins, C., Burnham-Lemaire, G., Korycinski, H., Pierce, H., Martinez, M., & El-Sabawi, T. (2020). Student Perceptions of a University Medical Amnesty Policy Are Impacted by Race and Racism: A Qualitative Study. *Substance Use and Misuse*, *56*(2), 185–191. https://doi.org/10.1080/10826084.2020.1846199

CASEL. (2012). *Effective Social and Emotional Learning Programs: Preschool and Elementary*

School Edition. Retrieved from http://casel.org/wp-content/uploads/2016/01/2013-casel-guide-1.pdf

Catanzarite, J. A., & Robinson, M. D. (2013). Peer Education in Campus Suicide Prevention. *New Directions for Student Services*, *2013*(141), 43–53. https://doi.org/10.1002/ss.20039

CCMH. (2016). *Center for Collegiate Mental Health: 2016 Annual Report*. State College, PA.

Center for Collegiate Mental Health. (2020). *Center for Collegiate Mental Health 2019 Annual Report*. Retrieved from https://ccmh.psu.edu/files/2018/02/2017_CCMH_Report-1r4m88x.pdf

Cham, H., Hughes, J. N., West, S. G., & Im, M. H. (2014). Assessment of Adolescents' Motivation for Educational Attainment. *Psychological Assessment*, *26*(2), 642–659. https://doi.org/10.1177/0963721414541462.Self-Control

Charles, S. T., Karnaze, M. M., & Leslie, F. M. (2021). Positive factors related to graduate student mental health. *Journal of American College Health*, *0*(0), 1–9. https://doi.org/10.1080/07448481.2020.1841207

Chen, J. A., Stevens, C., Wong, S. H. M., & Liu, C. H. (2019). Psychiatric Symptoms and Diagnoses Among U.S. College Students: A Comparison by Race and Ethnicity. *Psychiatric Services*, *70*, 442–449. https://doi.org/10.1176/appi.ps.201800388

Chessman, H., & Wayt, L. (2016, January 13). What are students demanding? *Higher Education Today*.

Cheurprakobkit, S. (2000). Police-citizen contact and police performance attitudinal differences between Hispanics and non-Hispanics. *Journal of Criminal Justice*, *28*(4), 325–336. https://doi.org/10.1016/S0047-2352(00)00042-8

Chia-Chen, A., Szalacha, L. A., & Menon, U. (2014). Perceived Discrimination and Its Associations With Mental Health and Substance Use Among Asian American and Pacific Islander Undergraduate and Graduate Students. *Journal of American College Health*, *62*(6), 390–398. https://doi.org/10.1080/07448481.2014.917648

Chiesa, A., & Serretti, A. (2009). Mindfulness-based stress reduction for stress management in healthy people: A review and meta-analysis. *Journal of Alternative and Complementary Medicine*, *15*(5), 593–600. https://doi.org/10.1089/acm.2008.0495

Chinman, M., George, P., Dougherty, R. H., Daniels, A. S., Ghose, S. S., Swift, A., & Delphin-Rittmon, M. E. (2014). Peer support services for individuals with serious mental illnesses: Assessing the evidence. *Psychiatric Services*, *65*(4), 429–441. https://doi.org/10.1176/appi.ps.201300244

Chiou, C. C., Wang, Y. M., & Lee, L. T. (2014). Reducing statistics anxiety and enhancing statistics learning achievement: Effectiveness of a one-minute strategy. *Psychological Reports*, *115*(1), 297–310. https://doi.org/10.2466/11.04.PR0.115c12z3

Cho, S., Crenshaw, K. W., & Mccall, L. (2013). Toward a Field of Intersectionality Studies: Theory, Applications, and Praxis. *Signs: Journal of Women in Culture and Society*, *38*(4), 785–810.

Chorpita, B. F., & Daleiden, E. L. (2009). Mapping Evidence-Based Treatments for Children and Adolescents: Application of the Distillation and Matching Model to 615 Treatments From 322 Randomized Trials. *Journal of Consulting and Clinical Psychology*, *77*(3), 566–579. https://doi.org/10.1037/a0014565

Chorpita, B. F., Daleiden, E. L., & Weisz, J. R. (2005). Identifying and selecting the common elements of evidence based interventions: A distillation and matching model. *Mental Health Services Research*, *7*(1), 5–20. https://doi.org/10.1007/s11020-005-1962-6

Christensen, H., Pallister, E., Smale, S., Hickie, I. B., & Calear, A. L. (2010). Community-based prevention programs for anxiety and depression in youth: A systematic review. *Journal of Primary Prevention*, *31*(3), 139–170. https://doi.org/10.1007/s10935-010-0214-8

Christiani, L. (2021). Intersectional stereotyping in policing: an analysis of traffic stop outcomes. *Politics, Groups, and Identities*, *9*(5), 893–915. https://doi.org/10.1080/21565503.2020.1748064

Chung, H., Klein, M. C., Silverman, D., Corson-Rikert, J., Davidson, E., Ellis, P., & Kasnakian, C. (2011). A pilot for improving depression care on college campuses: Results of the college breakthrough series-depression (CBS-D) project. *Journal of American College Health*, *59*(7), 628–639. https://doi.org/10.1080/07448481.2010.528097

Ciffone, J. (2007). Suicide prevention: An analysis and replication of a curriculum-based high school program. *Social Work*, *52*(1), 41–49. https://doi.org/10.1093/sw/52.1.41

Cimini, M. D., & Rivero, E. M. (2018). *Promoting Behavioral Health and Reducing Risk Among College Students*. New York and London: Routledge. https://doi.org/10.4324/9781315175799

Clark, W., Welch, S. N., Berry, S. H., Collentine, A. M., Collins, R., Lebron, D., & Shearer, A. L. (2013). California's historic effort to reduce the stigma of mental illness: The Mental Health Services Act. *American Journal of Public Health*, *103*(5), 786–794. https://doi.org/10.2105/AJPH.2013.301225

Clement, S., Lassman, F., Barley, E., Evans-Lacko, S., Yamaguchi, S., Slade, M., … Thornicroft, G. (2013). Mass media interventions for reducing mental health-related stigma (Review). *Cochrane Database of Systematic Reviews*, (6). https://doi.org/10.1002/14651858.CD009453.

Clements-Nolle, K., Marx, R., & Katz, M. (2006). Attempted Suicide Among Transgender Persons. *Journal of Homosexuality*, *51*(3), 225–247. https://doi.org/10.1300/J082v51n03

Clements-Nolle, K., Marx, R., Katz, M., Clements-Noelle, K., Marx, R., & Katz, M. (2006). Attempted Suicide Among Transgender Persons. *Journal of Homosexuality*, *51*(3), 225–247. https://doi.org/10.1300/J082v51n03

Coburn, K. L., & Woodward, B. (2001). More Than Punch and Cookies: A New Look at Parent Orientation Programs. *New Directions for Student Services*, *94*, 27–38. https://doi.org/10.1002/ss.9

Cohen, D. A., Scribner, R. A., & Farley, T. A. (2000). A structural model of health behavior: A pragmatic approach to explain and influence health behaviors at the population level. *Preventive Medicine*, *30*(2), 146–154. https://doi.org/10.1006/pmed.1999.0609

Cokley, K., Hall-Clark, B., & Hicks, D. (2011). Ethnic Minority-Majority Status and Mental Health: The Mediating Role of Perceived Discrimination. *Journal of Mental Health Counseling*, *33*(3), 243–263. https://doi.org/10.1353/hsj.2012.0003

Cokley, K., McClain, S., Enciso, A., & Martinez, M. (2013). An examination of the impact of minority status stress and impostor feelings on the mental health of diverse ethnic minority college students. *Journal of Multicultural Counseling and Development*, *41*(2), 82–95. https://doi.org/10.1002/j.2161-1912.2013.00029.x

Cole, R. M., & Heinecke, W. F. (2020). Higher education after neoliberalism: Student activism as a guiding light. *Policy Futures in Education*, *18*(1), 90–116. https://doi.org/10.1177/1478210318767459

Coleman, D., Black, N., Ng, J., & Blumenthal, E. (2019). Kognito's Avatar-Based Suicide Prevention Training for College Students : Results of a Randomized Controlled Trial and a

Naturalistic Evaluation. *Suicide and Life-Threatening Behavior*, *49*(6), 1735–1745. https://doi.org/10.1111/sltb.12550

Coll, C. G., Lamberty, G., Jenkins, R., McAdoo, H. P., Crnic, K., Wasik, B. H., & García, H. V. (1996). *An Integrative Model for the Study of Developmental Competencies in Minority Children*. *Child Development* (Vol. 67). https://doi.org/10.1111/j.1467-8624.1996.tb01834.x

Collings, R., Swanson, V., & Watkins, R. (2014). The impact of peer mentoring on levels of student wellbeing, integration and retention: a controlled comparative evaluation of residential students in UK higher education. *Higher Education*, *68*(6), 927–942. https://doi.org/10.1007/s10734-014-9752-y

Collins, P. H. (1990). Black feminist thought in the matrix of domination. In P.H. Collins (Ed.), *Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment* (pp. 221–238). Boston, MA: Unwin Hyman.

Compton, M. T., Bahora, M., Watson, A. C., & Oliva, J. R. (2008). A comprehensive review of extant research on Crisis Intervention Team (CIT) programs. *Journal of the American Academy of Psychiatry and the Law*, *36*(1), 47–55.

Conchas, G. Q. (2001). Structuring failure and success: Understanding the variability in Latino School Engagement. *Harvard Educational Review*, *71*(3), 475–504. https://doi.org/10.17763/haer.71.3.280w814v1603473k

Conley, C. S. (2015). SEL in Higher Education. In Joseph A. Durlak, C. E. Domitrovich, R. P. Weissberg, T. P. Gullotta, J. P. Comer, L. Darling-Hammond, … J. Buffett (Eds.), *Handbook of Social and Emotional Learning Research and Practice*. New York, NY: Guilford Publications.

Conley, C. S., Durlak, J. A., & Dickson, D. A. (2013). An Evaluative Review of Outcome Research on Universal Mental Health Promotion and Prevention Programs for Higher Education Students. *Journal of American College Health*, *61*(5), 286–301. https://doi.org/10.1080/07448481.2013.802237

Conley, C. S., Durlak, J. A., & Kirsch, A. C. (2015). A Meta-analysis of Universal Mental Health Prevention Programs for Higher Education Students. *Prevention Science*, *16*(4), 487–507. https://doi.org/10.1007/s11121-015-0543-1

Conley, C. S., Durlak, J. A., Shapiro, J. B., Kirsch, A. C., & Zahniser, E. (2016). A Meta-Analysis of the Impact of Universal and Indicated Preventive Technology-Delivered Interventions for Higher Education Students. *Prevention Science*, *17*(6), 659–678. https://doi.org/10.1007/s11121-016-0662-3

Conley, C. S., Shapiro, J. B., Kirsch, A. C., & Durlak, J. A. (2017). A meta-analysis of indicated mental health prevention programs for at-risk higher education students. *Journal of Counseling Psychology*, *64*(2), 121–140. https://doi.org/10.1037/cou0000190

Conley, C. S., Travers, L. V., & Bryant, F. B. (2013). Promoting psychosocial adjustment and stress management in first-year college students: The benefits of engagement in a psychosocial wellness seminar. *Journal of American College Health*, *61*(2), 75–86. https://doi.org/10.1080/07448481.2012.754757

Cook, J. E., Purdie-Vaughns, V., Meyer, I. H., & Busch, J. T. A. (2014). Intervening within and across levels: A multilevel approach to stigma and public health. *Social Science and Medicine*, *103*, 101–109. https://doi.org/10.1016/j.socscimed.2013.09.023

Cooney, P., & Shaefer, H. (2021). Material hardship and mental health following the COVID-19 Relief Bill and American Rescue Plan Act. Retrieved June 20, 2021, from

http://sites.fordschool.umich.edu/poverty2021/files/2021/05/PovertySolutions-Hardship-After-COVID-19-Relief-Bill-PolicyBrief-r1.pdf

Cooper, H. L. F., & Fullilove, M. (2016). Editorial: Excessive Police Violence as a Public Health Issue. *Journal of Urban Health*, *93*, 1–7. https://doi.org/10.1007/s11524-016-0040-2

Cooper, H., Moore, L., Gruskin, S., & Krieger, N. (2004). Characterizing Perceived Police Violence: Implications for Public Health. *Public Health*, *94*(7), 1109–1118.

Copeland, W. E., McGinnis, E., Bai, Y., Adams, Z., Nardone, H., Devadanam, V., … Hudziak, J. J. (2021). Impact of COVID-19 Pandemic on College Student Mental Health and Wellness. *Journal of the American Academy of Child and Adolescent Psychiatry*, *60*(1), 134-141.e2. https://doi.org/10.1016/j.jaac.2020.08.466

Corredor, J. A., González-Arango, F., & Maldonado-Carreño, C. (2020). When unintended effects are really unintended: depressive symptoms and other psychological effects of forgivable loan programs for college education. *Higher Education*, *80*(4), 645–662. https://doi.org/10.1007/s10734-020-00502-9

Corrigan, P. W., Markowitz, F. E., & Watson, A. C. (2004). Structural levels of mental illness stigma and discrimination. *Schizophrenia Bulletin*, *30*(3), 481–491. https://doi.org/10.1093/oxfordjournals.schbul.a007096

Corrigan, P. W., Morris, S. B., Michaels, P. J., Rafacz, J. D., & Rüsch, N. (2012). Challenging the Public Stigma of Mental Illness: A Meta-Analysis of Outcome Studies. *Psychiatric Services*, *63*(10), 963–973. https://doi.org/10.1176/appi.ps.005292011

Council of Graduate Schools. (2021). *Supporting Graduate Student Mental Health and well-being: Evidence-informed recommendations for the graduate community*. Washington DC.

Craig M. Becker, Hans Johnson, Karen Vail-Smith, Cathy Maahs-Fladung, Debra Tavasso, Barry Elmore, & Charla Blumell. (2008). Making Health Happen on Campus: A Review of a Required General Education Health Course. *The Journal of General Education*, *57*(2), 67–74. https://doi.org/10.1353/jge.0.0015

Crenshaw, K. (1991). Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color. *Stanford Law Review*, *43*(6), 1241. https://doi.org/10.2307/1229039

Crenshaw, K.W., Ritchie, A. J., Anspach, R., Gilmer, R., & Harris, L. (2015). *Say Her Name: Resisting Police Brutality Against Black Women*. New York, NY. Retrieved from http://static1.squarespace.com/static/53f20d90e4b0b80451158d8c/t/560c068ee4b0af26f72741df/1443628686535/AAPF_SMN_Brief_Full_singles-min.pdf.

Crenshaw, Kimberlé Williams. (1989). Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory, and Antiracist Politics. *University of Chicago Legal Forum*, *140*, 139–167.

Cress, C. M., & Ikeda, E. K. (2003). Distress under Duress: The Relationship between Campus Climate and Depression in Asian American College Students. *NASPA Journal*, *40*(2), 74–97. https://doi.org/10.2202/1949-6605.1224

Crisp, G., Taggart, A., & Nora, A. (2015). Undergraduate Latina/o Students: A Systematic Review of Research Identifying Factors Contributing to Academic Success Outcomes. *Review of Educational Research*, *85*(2), 249–274. https://doi.org/10.3102/0034654314551064

Crockett, L. J., Iturbide, M. I., Torres Stone, R. A., McGinley, M., Raffaelli, M., & Carlo, G. (2007). Acculturative Stress, Social Support, and Coping: Relations to Psychological

Adjustment Among Mexican American College Students. *Cultural Diversity and Ethnic Minority Psychology*, *13*(4), 347–355. https://doi.org/10.1037/1099-9809.13.4.347

Cross, K. P., & Angelo, T. A. (1988). Classroom assessment techniques: A handbook for faculty. *The National Center for Research to Improve Post-Secondary Teaching and Learning*. Retrieved from http://www.scopus.com/inward/record.url?eid=2-s2.0-84873961428&partnerID=tZOtx3y1

Cross, W., Matthieu, M. M., Lezine, D., & Knox, K. L. (2010). Does a Brief Suicide Prevention Gatekeeper Training Program Enhance Observed Skills? *Crisis*, *31*(3), 149–159. https://doi.org/10.1027/0227-5910/a000014

Crosse, S., Gottfredson, D. C., Bauer, E. L., Tang, Z., Harmon, M. A., Hagen, C. A., & Greene, A. D. (2021). Are Effects of School Resource Officers Moderated by Student Race and Ethnicity? *Crime and Delinquency*. https://doi.org/10.1177/0011128721999346

Cuijpers, P., Cristea, I. A., Ebert, D. D., Koot, H. M., Auerbach, R. P., Bruffaerts, R., & Kessler, R. C. (2016). Psychological Treatment of Depression in College Students: A Metaanalysis. *Depression and Anxiety*, *33*(5), 400–414. https://doi.org/10.1002/da.22461

Cummings, J. R., Wen, H., & Druss, B. G. (2013). Improving access to mental health services for youth in the United States. *JAMA - Journal of the American Medical Association*, *309*(6), 553–554. https://doi.org/10.1001/jama.2013.437

Currie, C. E., Elton, R. A., Todd, J., & Platt, S. (1997). Indicators of Socioeconomic Status for Adolescents: The WHO Health Behaviour in School-Aged Children Survey. *Health Education Research*, *12*(3), 385–397. https://doi.org/10.1093/her/12.3.385

Czeisler, M. É., Lane, R. I., Petrosky, E., Wiley, J. F., Christensen, A., Njai, R., … Rajaratnam, S. M. W. (2020). Mental health, substance use, and suicidal ideation during the COVID-19 pandemic — United States, June 24–30, 2020. *MMWR. Morbidity and Mortality Weekly Report*, *69*(32), 1049–1057. https://doi.org/10.15585/mmwr.mm6932a1

Daenekindt, S., & Huisman, J. (2020). Mapping the scattered field of research on higher education. A correlated topic model of 17,000 articles, 1991–2018. *Higher Education*, *80*(3), 571–587. https://doi.org/10.1007/s10734-020-00500-x

Daigle, M. S. (2005). Suicide prevention through means restriction: Assessing the risk of substitution: A critical review and synthesis. *Accident Analysis and Prevention*, *37*(4), 625–632. https://doi.org/10.1016/j.aap.2005.03.004

Dam-Baggen, R. Van, & Kraaimaat, F. (1986). A group social skills training program with psychiatric patients: Outcome, drop-out rate and prediction. *Behaviour Research and Therapy*, *24*(2), 161–169. https://doi.org/10.1016/0005-7967(86)90087-2

Davidson, L., Bellamy, C., Guy, K., & Miller, R. (2012). Peer support among persons with severe mental illnesses: A review of evidence and experience. *World Psychiatry*, *11*(2), 123–128. https://doi.org/10.1016/j.wpsyc.2012.05.009

Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S. F., … Sheridan, J. F. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic Medicine*, *65*(4), 564–570. https://doi.org/10.1097/01.PSY.0000077505.67574.E3

Davies, E. B., Morriss, R., & Glazebrook, C. (2014). Computer-delivered and web-based interventions to improve depression, anxiety, and psychological well-being of university students: A systematic review and meta-analysis. *Journal of Medical Internet Research*, *16*(5). https://doi.org/10.2196/jmir.3142

Davis, A. (2003). *Are Prisons Obsolete?* New York: Seven Stories Press.

Davis, B., Stafford, M. B. R., & Pullig, C. (2014). How gay-straight alliance groups mitigate the relationship between gay-bias victimization and adolescent suicide attempts. *Journal of the American Academy of Child and Adolescent Psychiatry*, *53*(12), 1271–1278. https://doi.org/10.1016/j.jaac.2014.09.010

Davis, C. H. F., Harris, J. C., Stokes, S., & Harper, S. R. (2019). But Is It Activist?: Interpretive Criteria for Activist Scholarship in Higher Education. *The Review of Higher Education*, *42*(5), 85–108. https://doi.org/10.1353/rhe.2019.0046

Day, J. K., Ioverno, S., & Russell, S. T. (2019). Safe and supportive schools for LGBT youth: Addressing educational inequities through inclusive policies and practices. *Journal of School Psychology*, *74*(January), 29–43. https://doi.org/10.1016/j.jsp.2019.05.007

De Luca, S. M., Franklin, C., Yueqi, Y., Johnson, S., & Brownson, C. (2016). The Relationship Between Suicide Ideation, Behavioral Health, and College Academic Performance. *Community Mental Health Journal*, *52*(5), 534–540. https://doi.org/10.1007/s10597-016-9987-4

Deckro, G. R., Ballinger, K. M., Hoyt, M., Wilcher, M., Dusek, J., Myers, P., … Benson, H. (2002). The evaluation of a mind/body intervention to reduce psychological distress and perceived stress in college students. *Journal of the American College Health Association*, *50*(6), 281–287. https://doi.org/10.1080/07448480209603446

Deisenhammer, E. A., Ing, C. M., Strauss, R., Kemmler, G., Hinterhuber, H., & Weiss, E. M. (2009). The duration of the suicidal process: How much time is left for intervention between consideration and accomplishment of a suicide attempt? *Journal of Clinical Psychiatry*, *70*(1), 19–24. https://doi.org/10.4088/JCP.07m03904

Dennison, C. R., & Finkeldey, J. G. (2021). Self-reported experiences and consequences of unfair treatment by police*. *Criminology*, *59*(2), 254–290. https://doi.org/10.1111/1745-9125.12269

Deo, M. E. (2021). Why BIPOC Fails. *Virginia Law Review*, *107*, 115–142.

Department of Education. (2021). U.S. Department of Education Makes Available $36 Billion in American Rescue Plan Funds to Support Students and Institutions. Retrieved April 22, 2021, from https://www.ed.gov/news/press-releases/us-department-education-makes-available-36-billion-american-rescue-plan-funds-support-students-and-institutions

Department of Education Office of Civil Rights. (2021). *Education in a Pandemic: The Disparate Impacts of COVID-19 on America's Students*. Retrieved from https://www2.ed.gov/about/offices/list/ocr/ docs/20210608-impacts-of-covid19.pdf

DesJardins, S. L., Ahlburg, D. A., & McCall, B. P. (2002). Simulating the longitudinal effects of changes in financial aid on student departure from college. *Journal of Human Resources*, *37*(3), 653–679. https://doi.org/10.2307/3069685

DeVylder, J. E., Frey, J. J., Cogburn, C. D., Wilcox, H. C., Sharpe, T. L., Oh, H. Y., … Link, B. G. (2017). Elevated Prevalence of Suicide Attempts among Victims of Police Violence in the USA. *Journal of Urban Health*, *94*(5), 629–636. https://doi.org/10.1007/s11524-017-0160-3

Devylder, J. E., Jun, H. J., Fedina, L., Coleman, D., Anglin, D., Cogburn, C., … Barth, R. P. (2018). Association of Exposure to Police Violence with Prevalence of Mental Health Symptoms among Urban Residents in the United States. *JAMA Network Open*, *1*(7), 1–14. https://doi.org/10.1001/jamanetworkopen.2018.4945

Devylder, J. orda. E., Oh, H. Y., Nam, B., Sharpe, T. L., Lehmann, M., & Link, B. G. (2017). Prevalence, demographic variation and psychological correlates of exposure to police

victimisation in four US cities. *Epidemiology and Psychiatric Sciences*, *26*(5), 466–477. https://doi.org/10.1017/S2045796016000810

Diamond, G. S., Wintersteen, M. B., Brown, G. K., Diamond, G. M., Gallop, R., Shelef, K., & Levy, S. (2010). Attachment-Based Family Therapy for Adolescents with Suicidal Ideation: A Randomized Controlled Trial. *Journal of the American Academy of Child and Adolescent Psychiatry*, *49*(2), 122–131. https://doi.org/10.1097/00004583-201002000-00006

Dietrich, S. K., Francis-Jimenez, C. M., Knibbs, M. D., Umali, I. L., & Truglio-Londrigan, M. (2016). Effectiveness of sleep education programs to improve sleep hygiene and/or sleep quality in college students: a systematic review. *JBI Database of Systematic Reviews and Implementation Reports*, *14*(9), 108–134. https://doi.org/10.11124/JBISRIR-2016-003088

Dilip, D., & Bates, L. (2021). Sexual Violence and Mental Health Among College Students in the Era of #MeToo. *Violence and Gender*, *8*(1), 8–13. https://doi.org/10.1089/vio.2020.0033

Dimick, J. B., & Ryan, A. M. (2014). Methods for Evaluating Changes in Health Care Policy: The Difference-in-Differences Approach. *JAMA*, *312*(22), 2401–2402. https://doi.org/10.1001/jama.2014

Dizon, J. P. M. (2021). Protecting the university, policing race: A case study of campus policing. *Journal of Diversity in Higher Education*. https://doi.org/10.1037/dhe0000350

Dobkin, P. L., & Hutchinson, T. A. (2013). Teaching mindfulness in medical school: Where are we now and where are we going? *Medical Education*, *47*(8), 768–779. https://doi.org/10.1111/medu.12200

Dooris, M. (2006). Healthy settings: Challenges to generating evidence of effectiveness. *Health Promotion International*, *21*(1), 55–65. https://doi.org/10.1093/heapro/dai030

Dooris, M. (2009). Holistic and sustainable health improvement: The contribution of the settings-based approach to health promotion. *Perspectives in Public Health*, *129*(1), 29–36. https://doi.org/10.1177/1757913908098881

Dooris, M., & Doherty, S. (2009). *National Research and Development Project on Healthy Universities*.

Dooris, M., Wills, J., & Newton, J. (2014). Theorizing healthy settings: A critical discussion with reference to Healthy Universities. *Scandinavian Journal of Public Health*, *42*(July), 7–16. https://doi.org/10.1177/1403494814544495

Douce, L. A., & Keeling, R. P. (2014). A strategic primer on college student mental health, 1–11.

Dowd, A. C., & Coury, T. (2006). The effect of loans on the persistence and attainment of community college students. *Research in Higher Education*, *47*(1), 33–62. https://doi.org/10.1007/s11162-005-8151-8

Downing, J. M., & Przedworski, J. M. (2018). Health of Transgender Adults in the U.S., 2014–2016. *American Journal of Preventive Medicine*, 2014–2016. https://doi.org/10.1016/j.amepre.2018.04.045

Draughn, T., Elkins, B., & Roy, R. (2002). Allies in the struggle: Eradicating homophobia and heterosexism on campus. *Journal of Lesbian Studies*, *6*(3–4), 9–20. https://doi.org/10.4324/9781315820576

Drum, D. J., Brownson, C., Denmark, A. B., & Smith, S. E. (2009). New Data on the Nature of Suicidal Crises in College Students: Shifting the Paradigm. *Professional Psychology: Research and Practice*, *40*(3), 213–222. https://doi.org/10.1037/a0014465

Du Bois, S. N., Yoder, W., Guy, A. A., Manser, K., & Ramos, S. (2018). Examining associations between state-level transgender policies and transgender health. *Transgender Health*, *3*(1),

220–224. https://doi.org/10.1089/trgh.2018.0031

Duane, A., Casimir, A. E., Mims, L. C., Kaler-Jones, C., & Simmons, D. (2021). Beyond deep breathing: A new vision for equitable, culturally responsive, and trauma-informed mindfulness practice. *Middle School Journal*, *52*(3), 4–14. https://doi.org/10.1080/00940771.2021.1893593

Dubois, D. L., Holloway, B. E., Valentine, J. C., & Cooper, H. (2002). Effectiveness of Mentoring Programs for Youth: A Meta-Analytic Review. *American Journal of Community Psychology*, *30*(2), 157–197. https://doi.org/10.1023/A:1014628810714

DuBois, D. L., Portillo, N., Rhodes, J. E., Silverthorn, N., & Valentine, J. C. (2011). How Effective Are Mentoring Programs for Youth? A Systematic Assessment of the Evidence. *Psychological Science in the Public Interest, Supplement*, *12*(2), 57–91. https://doi.org/10.1177/1529100611414806

Dubovi, A. S., & Sawyer, J. S. (2018). Evidence-Based Peer Health Education New Paradigms and Opportunities. In M. D. Cimini & E. M. Rivero (Eds.), *Promoting Behavioral Health and Reducing Risk Among College Students* (pp. 203–2016). New York and London: Routledge.

Dubovi, A. S., & Sawyer, J. S. (2019). Evidence-Based Peer Health Education. *Promoting Behavioral Health and Reducing Risk Among College Students*, 203–215. https://doi.org/10.4324/9781315175799-12

Duffy, M. E., Twenge, J. M., & Joiner, T. E. (2019). Trends in Mood and Anxiety Symptoms and Suicide-Related Outcomes Among U.S. Undergraduates, 2007–2018: Evidence From Two National Surveys. *Journal of Adolescent Health*, *65*(5), 590–598. https://doi.org/10.1016/j.jadohealth.2019.04.033

Dugan, J. P., Kusel, M. L., & Simounet, D. M. (2012). Transgender College Students: An Exploratory Study of Perceptions, Engagement, and Educational Outcomes. *Journal of College Student Development*, *53*(5), 719–736. https://doi.org/10.1353/csd.2012.0067

Dunbar, M. S., Sontag-Padilla, L., Kase, C. A., Seelam, R., & Stein, B. D. (2018). Unmet mental health treatment need and attitudes toward online mental health services among community college students. *Psychiatric Services*, *69*(5), 597–600. https://doi.org/10.1176/appi.ps.201700402

Dunn, E. C., Milliren, C. E., Evans, C. R., Subramanian, S. V., & Richmond, T. K. (2015). Disentangling the relative influence of schools and neighborhoods on adolescents' risk for depressive symptoms. *American Journal of Public Health*, *105*(4), 732–740. https://doi.org/10.2105/AJPH.2014.302374

DuPont-Reyes, M. J., & Villatoro, A. P. (2019). The role of school race/ethnic composition in mental health outcomes: A systematic literature review. *Journal of Adolescence*, *74*(April 2018), 71–82. https://doi.org/10.1016/j.adolescence.2019.05.006

Durlak, Josesph A. (1997). *Successful Prevention Programs for Children and Adolescents*. New York, NY: Plenum Press.

Dvořáková, K., Greenberg, M. T., & Roeser, R. W. (2019). On the role of mindfulness and compassion skills in students' coping, well-being, and development across the transition to college: A conceptual analysis. *Stress and Health*, *35*(2), 146–156. https://doi.org/10.1002/smi.2850

Dvořáková, K., Kishida, M., Li, J., Elavsky, S., Broderick, P. C., Agrusti, M. R., & Greenberg, M. T. (2017). Promoting healthy transition to college through mindfulness training with first-year college students: Pilot randomized controlled trial. *Journal of American College*

Health, *65*(4), 259–267. https://doi.org/10.1080/07448481.2017.1278605

Dwyer, A. (2011). Policing Lesbian, Gay, Bisexual and Transgender Young People: a Gap in the Research Literature. *Current Issues in Criminal Justice*, *22*(3), 415–433. https://doi.org/10.1080/10345329.2011.12035896

Dynarski, S., & Scott-Clayton, J. (2013). Financial Aid Policy: Lessons from Research. *Postsecondary Education in the United States*, *23*(1), 3–16. https://doi.org/10.1353/foc.2013.0006

Eberth, J., & Sedlmeier, P. (2012). The Effects of Mindfulness Meditation: A Meta-Analysis. *Mindfulness*, *3*(3), 174–189. https://doi.org/10.1007/s12671-012-0101-x

Ebreo, A., Feist-Price, S., Siewe, Y., & Zimmerman, R. S. (2002). Effects of peer education on the peer educators in a school-based HIV prevention program: Where should peer education research go from here? *Health Education and Behavior*, *29*(4), 411–423. https://doi.org/10.1177/109019810202900402

Eccles, J., & Roeser, R. (2003). Schools as developmental contexts. In G. Adams (Ed.), *Handbook of Adolescence* (pp. 129–148). Oxford, UK: Blackwell Press.

Eccles, J. S., & Roeser, R. W. (2011). Schools as developmental contexts during adolescence. *Journal of Research on Adolescence*, *21*(1), 225–241. https://doi.org/10.1111/j.1532-7795.2010.00725.x

Eckel, P. D., & Kezar, A. (2003). *Taking the reins: Institutional transformation in higher education*. Westport, CT: American Council on Education.

Edwards, F., Esposito, M. H., & Lee, H. (2018). Risk of police-involved death by race/ethnicity and place, United States, 2012-2018. *American Journal of Public Health*, *108*(9), 1241–1248. https://doi.org/10.2105/AJPH.2018.304559

Eells, G. T., & Rockland-Miller, H. S. (2011). Assessing and responding to disturbed and disturbing students: Understanding the role of administrative teams in institutions of higher education. *Journal of College Student Psychotherapy*, *25*(1), 8–23. https://doi.org/10.1080/87568225.2011.532470

Effrig, J. C., Bieschke, K. J., & Locke, B. D. (2011). Examining Victimization and Psychological Distress in Transgender College Students. *Journal of College Counseling*, *14*(2), 143–157. https://doi.org/10.1002/j.2161-1882.2011.tb00269.x

Eisenberg, D., Lipson, S. K., Ceglarek, P., Phillips, M., Zhou, S., Morigney, J., … Steverson, S. (2019). *The Healthy Minds Study: 2018-2019 data report*. Ann Arbor.

Eisenberg, Daniel. (2019). Countering the Troubling Increase in Mental Health Symptoms Among U.S. College Students. *Journal of Adolescent Health*, *65*(5), 573–574. https://doi.org/10.1016/j.jadohealth.2019.08.003

Eisenberg, Daniel, Downs, M. F., Golberstein, E., & Zivin, K. (2009). Stigma and help seeking for mental health among college students. *Medical Care Research and Review*, *66*(5), 522–541. https://doi.org/10.1177/1077558709335173

Eisenberg, Daniel, Golberstein, E., & Gollust, S. E. (2007). Help-Seeking and Access to Mental Health Care in a University Student Population. *Medical Care*, *45*(7), 594–601. https://doi.org/10.1097/MLR.0b013e31803bb4c1

Eisenberg, Daniel, Golberstein, E., & Hunt, J. B. (2009). Mental Health and Academic Success in College. *The B.E. Journal of Economic Analysis & Policy*, *9*(1), 1–35. https://doi.org/10.2202/1935-1682.2191

Eisenberg, Daniel, Goldrick-Rab, S., Ketchen Lipson, S., & Broton, K. (2016). *Too Distressed to Learn? Mental Health Among Community College Students*. Madison, WI. Retrieved from

https://hope4college.com/wp-content/uploads/2018/09/Wisconsin_HOPE_Lab-Too_Distressed_To_Learn.pdf

Eisenberg, Daniel, Gollust, S. E., Golberstein, E., & Hefner, J. L. (2007). Prevalence and correlates of depression, anxiety, and suicidality among university students. *The American Journal of Orthopsychiatry*, *77*(4), 534–542. https://doi.org/10.1037/0002-9432.77.4.534

Eisenberg, Daniel, Hunt, J., & Speer, N. (2012). Help-seeking for mental health on college campuses: Review of evidence and next steps for research and practice. *Harvard Review of Psychiatry*, *20*(4), 222–232. https://doi.org/10.3109/10673229.2012.712839

Eisenberg, Daniel, Hunt, J., & Speer, N. (2013). Mental health in American colleges and universities: variation across student subgroups and across campuses. *The Journal of Nervous and Mental Disease*, *201*(1), 60–67. https://doi.org/10.1097/NMD.0b013e31827ab077

El-Amin, A. (2016). Responding to Racial Trauma. *Usable Knowledge*. Retrieved from https://www.gse.harvard.edu/uk/blog/responding-racial-trauma

Elharake, J. A., Frank, E., Kalmbach, D. A., Mata, D. A., & Sen, S. (2019). Racial and Ethnic Diversity and Depression in Residency Programs: a Prospective Cohort Study. *Journal of General Internal Medicine*, 1–3. https://doi.org/10.1007/s11606-019-05570-x

Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology*, *84*(2), 377–389. https://doi.org/10.1037/0022-3514.84.2.377

English, D., Bowleg, L., Río-gonzález, A. M., Tschann, J. M., Agans, R. P., Malebranche, D. J., & Services, W. H. (2017). Measuring Black Men's Police-Based Discrimination Experiences: Development and Validation of the Police and Law Enforcement (PLE) Scale. *Cultural Diversity and Ethnic Minority Psychology*, *23*(2), 185–199. https://doi.org/10.1037/cdp0000137.supp

Espinosa, L., Hollie, C., & Way, L. (2016). *Racial Climate on Campus: A Survey of College Presidents*. Washington, DC. Retrieved from https://higheredtoday.org/2016/03/08/racial-climate-on-campus-a-survey-of-college-presidents/

Espinosa, L. L., Turk, J. M., Taylor, M., & Chessman, H. (2019). *Race and Ethnicity in Higher Education*. Washington, D.C. Retrieved from http://www.springerlink.com/index/10.1007/978-90-481-8598-6

Ettman, C. K., Cohen, G. H., Abdalla, S. M., Sampson, L., Trinquart, L., Castrucci, B. C., … Galea, S. (2021). Persistent depressive symptoms during COVID-19: a national, population-representative, longitudinal study of U.S. adults. *The Lancet Regional Health - Americas*, (xxxx), 100091. https://doi.org/10.1016/j.lana.2021.100091

Ettner, S. L., Frank, R. G., & Kessler, R. C. (1997). The Impact of Psychiatric Disorders on Labor Market Outcomes. *Industrial and Labor Relations Review*, *51*(1), 64–81.

Evans, G. W. (2003). The built environment and mental health. *Journal of Urban Health*, *80*(4), 536–555. https://doi.org/10.1016/B978-0-12-409548-9.11009-7

Farrer, L., Gulliver, A., Chan, J. K. Y., Batterham, P. J., Reynolds, J., Calear, A., … Griffiths, K. M. (2013). Technology-based interventions for mental health in tertiary students: Systematic review. *Journal of Medical Internet Research*, *15*(5). https://doi.org/10.2196/jmir.2639

Farrow, R. (2016). Mental health policies at universities draw increasing concern. USA: Today Show.

Fedina, L., Backes, B. L., Jun, H. J., Shah, R., Nam, B., Link, B. G., & DeVylder, J. E. (2018). Police violence among women in four U.S. cities. *Preventive Medicine*, *106*(June 2017), 150–156. https://doi.org/10.1016/j.ypmed.2017.10.037

Fedorchak, D., & Cimini, M. D. (2018). Implementing Screening, Brief Intervention, and Referral to Treatment in College Student Behavioral Health Settings. In M. D. Cimini & E. M. Rivero (Eds.), *Promoting Behavioral Health and Reducing Risk Among College Students* (pp. 117–126). New York and London: Routledge.

Feldman, J. (2015). Public Health and the Policing of Black Lives. *Harvard Public Health Review*, *7*(Summer), 1–3.

Fennell, R. (1993). A Review of Evaluations of Peer Education Programs. *Journal of American College Healthal of American College Health*, *41*(6), 251–253. https://doi.org/10.1080/07448481.1993.9936336

Ferguson, K. T., Cassells, R. C., MacAllister, J. W., & Evans, G. W. (2013). The physical environment and child development: An international review. *International Journal of Psychology*, *48*(4), 437–468. https://doi.org/10.1080/00207594.2013.804190

Fernandez, A., Howse, E., Rubio-Valera, M., Thorncraft, K., Noone, J., Luu, X., … Salvador-Carulla, L. (2016). Setting-based interventions to promote mental health at the university: a systematic review. *International Journal of Public Health*, *61*(7), 797–807. https://doi.org/10.1007/s00038-016-0846-4

Finch, B. E., & Wallace, C. J. (1977). Successful interpersonal skills training with schizophrenic inpatients. *Journal of Consulting and Clinical Psychology*, *45*(5), 885–890. https://doi.org/10.1037/0022-006X.45.5.885

Fink, J. E. (2014). Flourishing: Exploring Predictors of Mental Health Within the College Environment. *Journal of American College Health*, *62*(6), 380–388. https://doi.org/10.1080/07448481.2014.917647

Fisher, E. B., Coufal, M. M., Parada, H., Robinette, J. B., Tang, P. Y., Urlaub, D. M., … Xu, C. (2014). Peer support in health care and prevention: Cultural, organizational, and dissemination issues. *Annual Review of Public Health*, *35*, 363–383. https://doi.org/10.1146/annurev-publhealth-032013-182450

Fleming, P. J., Lopez, W. D., Spolum, M., Anderson, R. E., Reyes, A. G., & Schulz, A. J. (2021). Policing Is a Public Health Issue: The Important Role of Health Educators. *Health Education and Behavior*. https://doi.org/10.1177/10901981211001010

Flores, S. M. (2009). State dream acts: The effect of in-state resident tuition policies and undocumented latino students. *Review of Higher Education*, *33*(2), 239–283. https://doi.org/10.1353/rhe.0.0134

Francis, P. C., & Horn, A. S. (2017). Mental Health Issues and Counseling Services in US Higher Education : An Overview of Recent Research and Recommended Practices. *Higher Education Policy*, *30*(2), 263–277. https://doi.org/10.1057/s41307-016-0036-2

Frantell, K. A., Miles, J. R., & Ruwe, A. M. (2019). Intergroup Dialogue: A Review of Recent Empirical Research and Its Implications for Research and Practice. *Small Group Research*, *50*(5), 654–695. https://doi.org/10.1177/1046496419835923

Freeman, T. M., Anderman, L. H., & Jensen, J. M. (2007). Sense of Belonging in College Freshmen at the Classroom and Campus Levels. *The Journal of Experimental Education*, *75*(3), 203–220.

Friedman, B., Freier, N. G., Kahn, P. H., Lin, P., & Sodeman, R. (2008). Office window of the future?-Field-based analyses of a new use of a large display. *International Journal of*

Human Computer Studies, *66*(6), 452–465. https://doi.org/10.1016/j.ijhcs.2007.12.005

Friedrich, A., & Schlarb, A. A. (2018). Let's talk about sleep: a systematic review of psychological interventions to improve sleep in college students. *Journal of Sleep Research*, *27*(1), 4–22. https://doi.org/10.1111/jsr.12568

Fries-Britt, S. (1998). Moving beyond Black achiever isolation: Experiences of gifted Black collegians. *Journal of Higher Education*, *69*(5), 556–576. https://doi.org/10.1080/00221546.1998.11775151

Frisz, R. H. (1999). Multicultural peer counseling: counseling the multicultural student. *Journal of Adolescence*, *22*, 515–526.

Frohlich, K. L., & Potvin, L. (2008). Transcending the known in public health practice: The inequality paradox: The population approach and vulnerable populations. *American Journal of Public Health*, *98*(2), 216–221. https://doi.org/10.2105/AJPH.2007.114777

Fuhr, D. C., Salisbury, T. T., De Silva, M. J., Atif, N., van Ginneken, N., Rahman, A., & Patel, V. (2014). Effectiveness of peer-delivered interventions for severe mental illness and depression on clinical and psychosocial outcomes: a systematic review and meta-analysis. *Social Psychiatry and Psychiatric Epidemiology*, *49*(11), 1691–1702. https://doi.org/10.1007/s00127-014-0857-5

Gagliardi, J. S., Espinosa, L. L., Turk, J. M., & Taylor, M. (2017). *American College President Survey*. Washington, D.C.

Gallagher, R.P. (2011). *National Survey of Counseling Center Directors 2011*. University of Pittsburgh, PA. Retrieved from http://www.iacsinc.org/ 2011 NSCCD.pdf

Gallagher, R.P. (2014). *National Survey of Counseling Center Directors*. Alexandria Services., VA.

Gallagher, Robert P. (2010). *National survey of counsleing center directors*.

Gallagher, Robert P. (2012). Thirty Years of the National Survey of Counseling Center Directors: A Personal Account. *Journal of College Student Psychotherapy*, *26*(3), 172–184. https://doi.org/10.1080/87568225.2012.685852

Gamarel, K. E., Reisner, S. L., Jean-Philippe, L., Nemoto, T., & Operario, D. (2014). Gender minority stress, mental health, and relationship quality: A dyadic investigation of transgender women and their cisgender male partners. *Journal of Family Psychology*, *24*(4), 437–447. https://doi.org/10.1037/a0037171.Gender

Garces, L. M., & Cogburn, C. D. (2015). Beyond Declines in Student Body Diversity. *American Educational Research Journal*, *52*(5), 828–860. https://doi.org/10.3102/0002831215594878

Garraza, L. G., Boyce, S. P., Walrath, C., Goldston, D. B., & McKeon, R. (2018). An Economic Evaluation of the Garrett Lee Smith Memorial Suicide Prevention Program. *Suicide and Life-Threatening Behavior*, *48*(1), 3–11. https://doi.org/10.1111/sltb.12321

Garraza, L. G., Walrath, C., Goldston, D. B., Reid, H., & McKeon, R. (2015). Effect of the Garrett Lee Smith Memorial Suicide Prevention Program on Suicide Attempts Among Youths. *JAMA Psychiatry*, *10005*, 1143. https://doi.org/10.1001/jamapsychiatry.2015.1933

Geller, A., Fagan, J., Tyler, T., & Link, B. G. (2014). Aggressive policing and the mental health of young urban men. *American Journal of Public Health*, *104*(12), 2321–2327. https://doi.org/10.2105/AJPH.2014.302046

Georgiades, K., Boyle, M. H., & Fife, K. A. (2013). Emotional and Behavioral Problems Among Adolescent Students: The Role of Immigrant, Racial/Ethnic Congruence and Belongingness in Schools. *Journal of Youth Adolescence*, *42*, 1473–1492. https://doi.org/10.1007/s10964-012-9868-2

Geronimus, A. T., James, S. A., Destin, M., Graham, L. F., Hatzenbuehler, M. L., Murphy, M. C., … Thompson, J. P. (2016). Jedi public health: Co-creating an identity-safe culture to promote health equity. *Social Science & Medicine - Population Health*, *2*, 105–116. https://doi.org/10.1016/j.ssmph.2016.02.008

Giambrone, A. (2015). When mentally ill students feel alone. *The Atlantic*. Retrieved from https://www.theatlantic.com/education/archive/2015/03/when-mentally-ill-students-feel-alone/386504/

Gibbs, T., & Larcus, J. (2014). Wellness Coaching: Helping Students Thrive. *Journal of Student Affairs*, *XXIV*, 23–34.

Gidugu, V., Rogers, E. S., Harrington, S., Maru, M., Johnson, G., Cohee, J., & Hinkel, J. (2015). Individual Peer Support: A Qualitative Study of Mechanisms of Its Effectiveness. *Community Mental Health Journal*, *51*(4), 445–452. https://doi.org/10.1007/s10597-014-9801-0

Gilken, J., & Johnson, H. L. (2019). Supporting Belongingness Through Instructional Interventions in Community College Classrooms. *Community College Enterprise*.

Glasener, K. M., Martell, C. A., & Posselt, J. R. (2019). Framing diversity: Examining the place of race in institutional policy and practice post-affirmative action. *Journal of Diversity in Higher Education*, *12*(1), 3–16. https://doi.org/10.1037/dhe0000086

Glasman, L. R., & Albarracın, D. (2006). Forming Attitudes That Predict Future Behavior: A Meta-Analysis of the Attitude–Behavior Relation. *Psychological Bulletin*, *132*(5), 778–822. https://doi.org/10.1037/0033-2909.132.5.778

Gleason, H. A., Livingston, N. A., Peters, M. M., Kathryn, M., Reely, E., Cochran, B. N., … Cochran, B. N. (2016). Effects of State Nondiscrimination Laws on Transgender and Gender-Nonconforming Individuals' Perceived Community Stigma and Mental Health. *Journal of Gay & Lesbian Mental Health*, *20*(4), 350–362. https://doi.org/10.1080/19359705.2016.1207582

Glennen, R. (1976). Intrusive College Counseling. *The School Counselor*, *24*(1), 48–50.

Golberstein, E., Eisenberg, D., & Gollust, S. E. (2008). Perceived Stigma and Mental Health Care Seeking. *Psychiatric Services*, *59*(4), 392–399.

Golberstein, E., Eisenberg, D., & Gollust, S. E. (2009). Perceived Stigma and Help-seeking Behavior: Longitudnal Evidence from the Healthy Minds Study. *Psychiatric Services*, *60*(9), 1254–1256. https://doi.org/10.1176/appi.ps.60.9.1254.Perceived

Goldberg, A. E., Beemyn, G., & Smith, J. Z. (2018). What Is Needed, What Is Valued: Trans Students' Perspectives on Trans-Inclusive Policies and Practices in Higher Education. *Journal of Educational and Psychological Consultation*, *29*(1), 1–41. https://doi.org/10.1080/10474412.2018.1480376

Goldberg, A. E., Kuvalanka, K., & Dickey, L. (2019). Transgender graduate students' experiences in higher education: A mixed-methods exploratory study. *Journal of Diversity in Higher Education*, *12*(1), 38–51. https://doi.org/10.1037/dhe0000074

Goldberg, A. E., Smith, J. A. Z., & Beemyn, G. (2020). Trans activism and advocacy among transgender students in higher education: A mixed methods study. *Journal of Diversity in Higher Education*, *13*(1), 66–84. https://doi.org/10.1037/dhe0000125

Goldenberg, T., Reisner, S. L., Harper, G. W., Gamarel, K. E., & Stephenson, R. (2020a). State-Level Transgender-Specific Policies, Race/Ethnicity, and Use of Medical Gender Affirmation Services among Transgender and Other Gender-Diverse People in the United States. *Milbank Quarterly*, *98*(3), 802–846. https://doi.org/10.1111/1468-0009.12467

Goldenberg, T., Reisner, S. L., Harper, G. W., Gamarel, K. E., & Stephenson, R. (2020b). State Policies and Healthcare Use Among Transgender People in the U.S. *American Journal of Preventive Medicine*, *59*(2), 247–259. https://doi.org/10.1016/j.amepre.2020.01.030

Goldrick-Rab, S., Harris, D. N., & Trostel, P. A. (2009). Why Financial Aid Matters (or Does Not) for College Success: Toward a New Interdisciplinary Perspective. In J. C. Smart (Ed.), *Higher Education: Handbook of Theory and Research. Higher Education: Handbook of Theory and Research*. Springer.

Goldsmith, J. B., & McFall, R. M. (1975). Development and evaluation of an interpersonal skill-training program for psychiatric inpatients. *Journal of Abnormal Psychology*, *84*(1), 51–58. https://doi.org/10.1037/h0076264

Gonzales, G., Loret de Mola, E., Gavulic, K. A., McKay, T., & Purcell, C. (2020). Mental Health Needs Among Lesbian, Gay, Bisexual, and Transgender College Students During the COVID-19 Pandemic. *Journal of Adolescent Health*, *67*(5), 645–648. https://doi.org/10.1016/j.jadohealth.2020.08.006

Gonzales, R. G., Suárez-Orozco, C., & Dedios-Sanguineti, M. C. (2013). No Place to Belong: Contextualizing Concepts of Mental Health Among Undocumented Immigrant Youth in the United States. *American Behavioral Scientist*, *57*(8), 1174–1199. https://doi.org/10.1177/0002764213487349

Goodenow, C., Szalacha, L., & Westheimer, K. (2006). School support groups, other school factors, and the safety of sexual minority adolescents. *Psychology in the Schools*, *43*(5), 573–589. https://doi.org/10.1002/pits.20173

Goodman-Bacon, A., Thank, I., Anderson, M., Bailey, M., Bitler, M., Callaway, B., … West, S. (2018). Nber Working Paper Series Difference-in-Differences With Variation in Treatment Timing. Retrieved from http://www.nber.org/papers/w25018

Goodwill, J. R., Taylor, R. J., & Watkins, D. C. (2021). Everyday Discrimination, Depressive Symptoms, and Suicide Ideation Among African American Men. *Archives of Suicide Research*, *25*(1), 74–93. https://doi.org/10.1080/13811118.2019.1660287

Gottlieb, A., & Wilson, R. (2019). The effect of direct and vicarious police contact on the educational achievement of urban teens. *Children and Youth Services Review*, *103*(March), 190–199. https://doi.org/10.1016/j.childyouth.2019.06.009

Gould, M. S., Marrocco, F. A., Hoagwood, K., Kleinman, M., Amakawa, L., & Altschuler, E. (2009). Service Use by At-Risk Youths After School-Based Suicide Screening. *Journal of the American Academy of Child and Adolescent Psychiatry*, *48*(12), 1193–1201. https://doi.org/10.1097/CHI.0b013e3181bef6d5

Gower, A. L., Rider, N., Brown, C., McMorris, B., Coleman, E., Taliaferro, L. A., & Eisenberg, M. E. (2018). Supporting Transgender and Gender Diverse Youth: Protection Against Emotional Distress and Substance Use. *American Journal of Preventive Medicine*, *55*(6), 787–794. https://doi.org/10.1016/j.amepre.2018.06.030

Graham, J., & McClain, S. (2019). *A Canonical Correlational Analysis Examining the Relationship Between Peer Mentorship, Belongingness, Impostor Feelings, and Black Collegians' Academic and Psychosocial Outcomes. American Educational Research Journal* (Vol. 56). https://doi.org/10.3102/0002831219842571

Graham, S. (2018). Race/Ethnicity and Social Adjustment of Adolescents: How (Not if) School Diversity Matters. *Educational Psychologist*, *53*(2), 64–67. https://doi.org/10.1080/00461520.2018.1428805

Graham, S., Munniksma, A., & Juvonen, J. (2014). Psychosocial Benefits of Cross-Ethnic

Friendships in Urban Middle Schools. *Child Development*, *85*(2), 469–483. https://doi.org/10.1111/cdev.12159

Granberg, E. M., Edmond, M. B., Simons, R. L., Lei, M. K., & Gibbons, F. X. (2012). The Association between Racial Socialization and Depression: Testing Direct and Buffering Associations in a Longitudinal Cohort of African American Young Adults. *Society and Mental Health*, *2*(3), 207–225. https://doi.org/10.1177/2156869312451152

Grant, J. M., Mottet, L. A., Tanis, J., Harrison, J., Herman, J. L., & Keisling, M. (2011). *Injustice at Every Turn: A Report of the National Equality, Discrimination Survey*. Washington, D.C. https://doi.org/10.1016/S0016-7878(90)80026-2

Grant, M. J., & Booth, A. (2009). A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal*, *26*(2), 91–108. https://doi.org/10.1111/j.1471-1842.2009.00848.x

Greeson, J. M., Juberg, M. K., Maytan, M., James, K., & Hogers, H. (2014). A Randomized Controlled Trial of Koru: A Mindfulness Program for College Students and Other Emerging Adults. *J Am Coll Health*, *62*(4), 222–233. https://doi.org/10.1080/07448481.2014.887571.A

Greytak, E. A., & Kosciw, J. G. (2010). *Year One Evaluation of the New York City Department of Education Respect for All Training Program*. New York.

Greytak, E. A., Kosciw, J. G., & Boesen, M. J. (2013). Educating the Educator: Creating Supportive School Personnel Through Professional Development. *Journal of School Violence*, *12*(1), 80–97. https://doi.org/10.1080/15388220.2012.731586

Gronholm, P. C., Nye, E., & Michelson, D. (2018). Stigma related to targeted school-based mental health interventions: A systematic review of qualitative evidence. *Journal of Affective Disorders*, *240*(March), 17–26. https://doi.org/10.1016/j.jad.2018.07.023

Guiffrida, D. A. (2003). African American Student Organizations as Agents of Social Integration. *Journal of College Student Development*, *44*(3), 304–319. https://doi.org/10.1353/csd.2003.0024

Gulliver, A., Griffiths, K. M., Christensen, H., & Brewer, J. L. (2012). A systematic review of help-seeking interventions for depression, anxiety and general psychological distress. *BMC Psychiatry*, *12*. https://doi.org/10.1186/1471-244X-12-81

Gummadam, P., Pittman, L. D., & Ioffe, M. (2016). School Belonging, Ethnic Identity, and Psychological Adjustment Among Ethnic Minority College Students. *The Journal of Experimental Education*, *84*(2), 289–306. https://doi.org/10.1080/00220973.2015.1048844

Gunnell, D., Fernando, R., Hewagama, M., Priyangika, W. D. D., & Konradsen, F. (2007). The impact of pesticide regulations on suicide in Sri Lanka. *International Journal of Epidemiology*, *36*(6), 1235–1242. https://doi.org/10.1093/ije/dym164

Gurung, R. A. R., & Galardi, N. R. (2021). Syllabus Tone, More Than Mental Health Statements, Influence Intentions to Seek Help. *Teaching of Psychology*, 6–11. https://doi.org/10.1177/0098628321994632

Guz, S., Kattari, S. K., Atteberry-Ash, B., Klemmer, C. L., Call, J., & Kattari, L. (2021). Depression and Suicide Risk at the Cross-Section of Sexual Orientation and Gender Identity for Youth. *Journal of Adolescent Health*, *68*(2), 317–323. https://doi.org/10.1016/j.jadohealth.2020.06.008

Haas, A., Koestner, B., Rosenberg, J., Moore, D., Garlow, S. J., Sedway, J., … Nemeroff, C. B. (2008). An interactive web-based method of outreach to college students at risk for suicide. *Journal of American College Health*, *57*(1), 15–22. https://doi.org/10.3200/JACH.57.1.15-

Haas, A. L., Wickham, R. E., McKenna, K., Morimoto, E., & Brown, L. M. (2018). Evaluating the effectiveness of a medical amnesty policy change on college students'alcohol consumption, physiological consequences, and helping behaviors. *Journal of Studies on Alcohol and Drugs*, *79*(4), 523–531. https://doi.org/10.15288/JSAD.2018.79.523

Hagerty, B. M., Williams, R. A., Coyne, J. C., & Early, M. R. (1996). Sense of Belonging and Indicators of Social and Psychological Functioning. *Archives of Psychiatric Nursing*, *10*(4), 235–244.

Hails, J., & Borum, R. (2003). Police Training and Specialized Approaches for Responding to People with Mental Illness. *Crime and Delinquency*, *49*(1), 52–61.

Hallfors, D., Brodish, P. H., Khatapoush, S., Sanchez, V., Cho, H., & Steckler, A. (2006). Feasibility of screening adolescents for suicide risk in "real-world" high school settings. *American Journal of Public Health*, *96*(2), 282–287. https://doi.org/10.2105/AJPH.2004.057281

Halliwell, E., & Diedrichs, P. C. (2014). Testing a dissonance body image intervention among young girls. *Health Psychology*, *33*(2), 201–204. https://doi.org/10.1037/a0032585

Hampton, C. (2021, June 30). UC Davis task force recommends campus police reforms. *Davis Enterprise*. Retrieved from https://www.davisenterprise.com/news/local/uc-davis-task-force-recommends-campus-police-reforms/

Han, D. Y., Chen, S. H., Hwang, K. K., & Wei, H. L. (2006). Effects of psychoeducation for depression on help-seeking willingness: Biological attribution versus destigmatization. *Psychiatry and Clinical Neurosciences*, *60*(6), 662–668. https://doi.org/10.1111/j.1440-1819.2006.01580.x

Harper, C. E., Kiyama, J. M., Ramos, D., & Aguayo, D. (2019). Examining the Inclusivity of Parent and Family College Orientations. *Journal of College Orientation, Transition, and Retention*, *25*(1), 30–42. https://doi.org/10.24926/jcotr.v25i1.2915

Harper, C., Sax, L., & Wolf, D. (2012). Parents' influence on college students' personal, academic, and social development. *Journal of Student Affairs Research and Practice*, *49*(2), 137–156.

Harper, G. W., & Neubauer, L. C. (2021). Teaching During a Pandemic: A Model for Trauma-Informed Education and Administration. *Pedagogy in Health Promotion*, *7*(1), 14–24. https://doi.org/10.1177/2373379920965596

Harper, S. R. (2012). Race without Racism: How Higher Education Researchers Minimize Racist Institutional Norms. *The Review of Higher Education*, *36*(1S), 9–29. https://doi.org/10.1353/rhe.2012.0047

Harper, S. R., & Quaye, S. J. (2007). Student organizations as venues for black identity expression and development among African American male student leaders. *Journal of College Student Development*, *48*(2), 127–144. https://doi.org/10.1353/csd.2007.0012

Harrer, M., Adam, S. H., Baumeister, H., Cuijpers, P., Karyotaki, E., Auerbach, R. P., … Ebert, D. D. (2019). Internet interventions for mental health in university students: A systematic review and meta-analysis. *International Journal of Methods in Psychiatric Research*, *28*(2), 1–18. https://doi.org/10.1002/mpr.1759

Harvard Law Review. (2016). The Shooting of Samuel DuBose. *Harvard Law Review*, *129*(4), 1168–1177. Retrieved from https://harvardlawreview.org/2016/02/the-shooting-of-samuel-dubose/

Hasenbush, A. (2019). Gender Identity Nondiscrimination Laws in Public Accommodations: a

Review of Evidence Regarding Safety and Privacy in Public Restrooms, Locker Rooms, and Changing Rooms. *Sexuality Research and Social Policy*, *16*, 70–83.

Hassed, C., De Lisle, S., Sullivan, G., & Pier, C. (2009). Enhancing the health of medical students: Outcomes of an integrated mindfulness and lifestyle program. *Advances in Health Sciences Education*, *14*(3), 387–398. https://doi.org/10.1007/s10459-008-9125-3

Hatcher, S. L., Shields, C. C., Wierba, E. E., Hatcher-Ross, J. L., & Hanley, S. J. (2014). College Peer Counselor Teaching Modalities: Sequelae in the Life and Work of Graduates. *Teaching of Psychology*, *41*(4), 345–348. https://doi.org/10.1177/0098628314549708

Hatzenbuehler, M. L. (2011). The social environment and suicide attempts in lesbian, gay, and bisexual youth. *Pediatrics*, *127*(5), 896–903. https://doi.org/10.1542/peds.2010-3020

Hatzenbuehler, M. L., Bellatorre, A., Lee, Y., Finch, B., Muennig, P., & Fiscella, K. (2014). Structural Stigma and All-Cause Mortality in Sexuality Minority Populations. *Social Science Medicine*, *103*, 33–41. https://doi.org/10.1038/jid.2014.371

Hatzenbuehler, M. L., Birkett, M., Van Wagenen, A., & Meyer, I. H. (2014). Protective school climates and reduced risk for suicide ideation in sexual minority youths. *American Journal of Public Health*, *104*(2), 279–286. https://doi.org/10.2105/AJPH.2013.301508

Hatzenbuehler, M. L., & Keyes, K. M. (2013). Inclusive Anti-Bullying Policies and Reduced Risk of Suicide Attempts in Lesbian and Gay Youth. *Journal of Adolescent Health*, *53*(1 0), S21–S26. https://doi.org/10.1038/jid.2014.371

Hatzenbuehler, M. L., Keyes, K. M., & Hasin, D. S. (2009). State-level policies and psychiatric morbidity in lesbian, gay, and bisexual populations. *American Journal of Public Health*, *99*(12), 2275–2281. https://doi.org/10.2105/AJPH.2008.153510

Hatzenbuehler, M. L., Phelan, J. C., & Link, B. G. (2013). Stigma as a fundamental cause of population health inequalities. *American Journal of Public Health*, *103*(5), 813–821. https://doi.org/10.2105/AJPH.2012.301069

Hausmann, L. R. M., Schofield, J. W., & Woods, R. L. (2007). Sense of Belonging as a Predictor of Intentions to Persist Among African American and White First-Year College Student. *Research in Higher Education*, *48*(7), 803–839. https://doi.org/10.1007/sl

Hausmann, L. R. M., Ye, F., Schofield, J., & Woods, R. L. (2009). Sense of Belonging and Persistence in White and African American First-Year Students. *Research in Higher Education*, *50*, 649–669. https://doi.org/10.1007/s11162-009-9137-8

Hawe, P., Shiell, A., & Riley, T. (2004). Complex interventions : how " out of control " can a randomised controlled trial be ? *Brittish Medical Journal*, *328*(June), 1561–1563.

Hawe, P., Shiell, A., & Riley, T. (2009). Theorising interventions as events in systems. *American Journal of Community Psychology*, *43*(3–4), 267–276. https://doi.org/10.1007/s10464-009-9229-9

Hawton, K. (2007). Restricting access to methods of suicide rationale and evaluation of this approach to suicide prevention. *Crisis*, *28*(SUPPL. 1), 4–9. https://doi.org/10.1027/0227-5910.28.S1.4

Hazell, C. M., Chapman, L., Valeix, S. F., Roberts, P., Niven, J. E., & Berry, C. (2020). Understanding the mental health of doctoral researchers: A mixed methods systematic review with meta-analysis and meta-synthesis. *Systematic Reviews*, *9*(1), 1–30. https://doi.org/10.1186/s13643-020-01443-1

Healthy Minds Network. (2021). The Healthy Minds Study.

Heck, N. C., Flentje, A., & Cochran, B. N. (2011). Offsetting risks: High school gay-straight alliances and lesbian, gay, bisexual, and transgender (LGBT) youth. *School Psychology*

Quarterly, *26*(2), 161–174. https://doi.org/10.1037/a0023226

Heck, N. C., Flentje, A., & Cochran, B. N. (2013). Offsetting risks: High school gay-straight alliances and lesbian, gay, bisexual, and transgender (LGBT) youth. *Psychology of Sexual Orientation and Gender Diversity*, *1*(S), 81–90. https://doi.org/10.1037/2329-0382.1.s.81

Hendricks, M. L., & Testa, R. J. (2012). A conceptual framework for clinical work with transgender and gender nonconforming clients: An adaptation of the minority stress model. *Professional Psychology: Research and Practice*, *43*(5), 460–467. https://doi.org/10.1037/a0029597

Herbaut, E., & Geven, K. (2020). What works to reduce inequalities in higher education? A systematic review of the (quasi-)experimental literature on outreach and financial aid. *Research in Social Stratification and Mobility*, *65*(November 2019), 100442. https://doi.org/10.1016/j.rssm.2019.100442

Herman, Steve, Archambeau, O. G., Deliramich, A. N., Kim, B. S. K., Chiu, P. H., & Frueh, B. C. (2011). Depressive Symptoms and Mental Health Treatment in an Ethnoracially Diverse College Student Sample. *Journal of American College Health*, *59*(8), 715–720. https://doi.org/10.1080/07448481.2010.529625.Depressive

Hersen, M., Himmelhoch, J. M., Thase, M. E., & Bellack, A. S. (1984). Effects of social skill training, amitriptyline, and psychotherapy in unipolar depressed women. *Behavior Therapy*, *15*(1), 21–40. https://doi.org/10.1016/S0005-7894(84)80039-8

Hettema, J., Steele, J., & Miller, W. R. (2005). Motivational interviewing. *Annual Review of Clinical Psychology*, *1*, 91–111. https://doi.org/10.1146/annurev.clinpsy.1.102803.143833

Heys, K. H., & Wawrzynski, M. R. (2013). Male peer educators: Effects of participation as peer educators on college men. *Journal of Student Affairs Research and Practice*, *50*(2), 189–207. https://doi.org/10.1515/jsarp-2013-0014

Higher Education Mental Health Alliance. (2018). *POSTVENTION: A Guide for Response to Suicide on College Campuses*. New York. Retrieved from https://hemha.org/wp-content/uploads/2018/06/jed-hemha-postvention-guide.pdf

Hillis, S. D., Blenkinsop, A., Villaveces, A., B., A. F., Liburd, L., Massetti, G. M., … Unwin, J. T. (2021). COVID-19 – Associated Orphanhood and Caregiver Death in the United States. *Pediatrics*, *148*(6), 31–43. https://doi.org/:e2021053760

Hinshaw, S. P., & Stier, A. (2008). Stigma as related to mental disorders. *Annual Review of Clinical Psychology*, *4*, 367–393. https://doi.org/10.1146/annurev.clinpsy.4.022007.141245

Hoagwood, K. E., & Kelleher, K. J. (2020). A Marshall Plan for Children's Mental Health after COVID-19. *Psychiatric Services*, *71*(12), 1216–1217. https://doi.org/10.1176/appi.ps.202000258.A

Hoffmann, F. L., & Mastrianni, X. (1992). Psychiatric Leave Policies: Myth and Reality. *Journal of College Student Psychotherapy*, *6*(2), 3–20. https://doi.org/10.1300/j035v06n02_03

Hofmann, S. G., Sawyer, A. T., Witt, A. A., & Oh, D. (2010). The Effect of Mindfulness-Based Therapy on Anxiety and Depression: A Meta-Analytic Review. *Journal of Consulting and Clinical Psychology*, *78*(2), 169–183. https://doi.org/10.1037/a0018555

Hogan, B. E., Linden, W., & Najarian, B. (2002). Social support interventions Do they work? *Clinical Psychology Review*, *22*, 381–440.

Holcombe, M. (2019, February). Law Students Say they Don't Get Treatment for Fear it Will Keep Them from Becoming Lawyers. *CNN*.

Holland, K. J., Cortina, L. M., & Freyd, J. J. (2018). Compelled disclosure of college sexual assault. *American Psychologist*, *73*(3), 256–268. https://doi.org/10.1037/amp0000186

Holmes, M. R., Hansen, D. J., & Lawrence, J. S. S. (1984). Conversational skills training with aftercare patients in the community: Social validation and generalization. *Behavior Therapy*, *15*(1), 84–100. https://doi.org/10.1016/S0005-7894(84)80043-X

Hom, M. A., Stanley, I. H., & Joiner, T. E. (2015). Evaluating factors and interventions that influence help-seeking and mental health service utilization among suicidal individuals: A review of the literature. *Clinical Psychology Review*, *40*, 28–39. https://doi.org/10.1016/j.cpr.2015.05.006

Hong, J. S., Woodford, M. R., Long, L. D., & Renn, K. A. (2016). Ecological Covariates of Subtle and Blatant Heterosexist Discrimination Among LGBQ College Students. *Journal of Youth and Adolescence*, *45*(1), 117–131. https://doi.org/10.1007/s10964-015-0362-5

Hood, B., Jelbert, S., & Santos, L. R. (2021). Benefits of a psychoeducational happiness course on university student mental well-being both before and during a COVID-19 lockdown. *Health Psychology Open*, *8*(1). https://doi.org/10.1177/2055102921999291

Hooks, B. (2003). *Teaching Community: A Pedagogy of Hope*. New York, NY: Routledge.

Hooven, C., Walsh, E., Pike, K. C., & Herting, J. R. (2012). Promoting CARE: Including parents in youth suicide prevention. *Family and Community Health*, *35*(3), 225–235. https://doi.org/10.1097/FCH.0b013e318250bcf9

Hope Center. (2021). *#RealCollege 2021: Basic Needs Insecurity During the Ongoing Pandemic*. Retrieved from https://hope4college.com/rc2021-bni-during-the-ongoing-pandemic/

Hope, E. C., Velez, G., Offidani-Bertrand, C., Keels, M., & Durkee, M. I. (2018). Political activism and mental health among black and Latinx college students. *Cultural Diversity and Ethnic Minority Psychology*, *24*(1), 26–39. https://doi.org/10.1037/cdp0000144

Hope, K. J., & Smith-Adcock, S. (2015). A Reason to Live: Can Understanding Close Friendships in College Prevent Suicide? *College Student Affairs Journal*, *33*(1), 85–104. https://doi.org/10.1353/csj.2015.0001

Hopkins, L. E., & Domingue, A. D. (2015). From Awareness to Action: College Students' Skill Development in Intergroup Dialogue. *Equity and Excellence in Education*, *48*(3), 392–402. https://doi.org/10.1080/10665684.2015.1057446

Horowitz, L. M., Ballard, E. D., & Pao, M. (2009). Suicide screening in schools, primary care and emergency departments. *Current Opinion in Pediatrics*, *21*(5), 620–627. https://doi.org/10.1097/MOP.0b013e3283307a89

Horwitz, A. G., McGuire, T., Busby, D. R., Eisenberg, D., Zheng, K., Pistorello, J., … King, C. A. (2020). Sociodemographic differences in barriers to mental health care among college students at elevated suicide risk. *Journal of Affective Disorders*, *271*(March), 123–130. https://doi.org/10.1016/j.jad.2020.03.115

Hossler, D., Ziskin, M., Gross, J. P. K., Kim, S., & Cekic, O. (2009). Student Aid and Its Role in Encouraging Persistence. In J. C. Smart (Ed.), *Higher Education: Handbook of Theory and Research* (pp. 389–424). Springer.

Howard, D. E., Schiraldi, G., Pineda, A., & Campanella, R. (2006). Stress and Mental Health Among College Students: Overview and Promising Intervetions. In M. V. Landow (Ed.), *Stress and Mental Health of College Students* (pp. 91–123). Nova Science Publishers. https://doi.org/10.1002/asi.4630330202

Howard, D., Schiraldi, G., Pineda, A., & Campanella, R. (2006). Stress and mental health among college students: overview and promising prevention intervention. In MV Landow (Ed.), *Stress and Mental Health of College Students* (pp. 91–123). New York, NY: Nova Science

Publishers.

Hoyle, R. H., & Crawford, A. M. (1994). Use of individual-level data to investigate group phenomena: Issues and Strategies. *Small Group Research*, *25*(4), 464–485.

Hoyt, L. T., Cohen, A. K., Dull, B., Maker Castro, E., & Yazdani, N. (2020). "Constant Stress Has Become the New Normal": Stress and Anxiety Inequalities Among U.S. College Students in the Time of COVID-19. *Journal of Adolescent Health*, *68*(2), 270–276. https://doi.org/10.1016/j.jadohealth.2020.10.030

Huang, J., Nigatu, Y. T., Smail-Crevier, R., Zhang, X., & Wang, J. (2018). Interventions for common mental health problems among university and college students: A systematic review and meta-analysis of randomized controlled trials. *Journal of Psychiatric Research*, *107*(December 2017), 1–10. https://doi.org/10.1016/j.jpsychires.2018.09.018

Hughes, J. N., Hee Im, M., & Allee, P. J. (2015). Effect of School Belonging Trajectories in Grades 6–8 on Achievement: Gender and Ethnic Differences. *Journal of School Psychology*, *53*(6), 493–507. https://doi.org/10.1177/0963721414541462.Self-Control

Humfress, H., Igel, V., Lamont, A., Tanner, M., Morgan, J., & Schmidt, U. (2002). The effect of a brief motivational intervention on community psychiatric patients' attitudes to their care, motivation to change, compliance and outcome: A case control study. *Journal of Mental Health*, *11*(2), 155–166. https://doi.org/10.1080/09638230020023552

Hunt, J., & Eisenberg, D. (2010). Mental Health Problems and Help-Seeking Behavior Among College Students. *Journal of Adolescent Health*, *46*(1), 3–10. https://doi.org/10.1016/j.jadohealth.2009.08.008

Hurd, N. M., Albright, J., Wittrup, A., Negrete, A., & Billingsley, J. (2018). Appraisal Support from Natural Mentors, Self-worth, and Psychological Distress: Examining the Experiences of Underrepresented Students Transitioning Through College. *Journal of Youth and Adolescence*, *47*(5), 1100–1112. https://doi.org/10.1007/s10964-017-0798-x

Hurd, N. M., Tan, J. S., & Loeb, E. L. (2016). Natural Mentoring Relationships and the Adjustment to College among Underrepresented Students. *American Journal of Community Psychology*, (May), 330–341. https://doi.org/10.1002/ajcp.12059

Hurd, N., & Zimmerman, M. (2010). Natural mentors, mental health, and risk behaviors: A longitudinal analysis of African American adolescents transitioning into adulthood. *American Journal of Community Psychology*, *46*(1), 36–48. https://doi.org/10.1007/s10464-010-9325-x

Hurtado, S., Carter, D. F., & Kardia, D. (1998). The Climate for Diversity: Key Issues for Institutional Self-Study. *New Directions for Institutional Research*, (98), 53–63. https://doi.org/10.1002/ir.9804

Hurtado, S., Han, J. C., Sáenz, V. B., Espinosa, L. L., Cabrera, N. L., & Cerna, O. S. (2007). Predicting transition and adjustment to college: Biomedical and behavioral science aspirants' and minority students' first year of college. *Research in Higher Education*, *48*(7), 841–887. https://doi.org/10.1007/s11162-007-9051-x

Hurtado, S., Milem, J. F., Clayton-Pedersen, A. R., & Allen, W. R. (1999). Enacting diverse learning environments: Improving the climate for racial/ethnic diversity in higher education. *ASHE/ERIC Higher Education Reports Series.*, *26*(8), 1–116.

Hurtado, S., & Ponjuan, L. (2005). Latino educational outcomes and the campus climate. *Journal of Hispanic Higher Education*, *4*(3), 235–251. https://doi.org/10.1177/1538192705276548

Husky, M. M., Sheridan, M., McGuire, L., & Olfson, M. (2011). Mental health screening and follow-up care in public high schools. *Journal of the American Academy of Child and*

Adolescent Psychiatry, *50*(9), 881–891. https://doi.org/10.1016/j.jaac.2011.05.013

Hwang, W.-C., & Goto, S. (2008). The impact of perceived racial discrimination on the mental health of Asian American and Latino college students. *Cultural Diversity and Ethnic Minority Psychology*, *14*(4), 326–335. https://doi.org/10.1037/1099-9809.14.4.326

Hyun, J. K., Quinn, B. C., Madon, T., & Lustig, S. (2006). Graduate student mental health: Needs assessment and utilization of counseling services. *Journal of College Student Development*, *47*(3), 247–266. https://doi.org/10.1353/csd.2006.0030

Indelicato, N. A., Mirsu-Paun, A., & Griffin, W. D. (2007). Outcomes of a Suicide Prevention Gatekeeper Training on a University Campus. *Journal of College Student Development*, *52*(3), 350–361.

Institute for Health Metrics and Evaluation. (2015). *The Global Burden of Disease: Generating Evidence, Guiding Policy*. Seattle, WA. Retrieved from https://www.healthdata.org/sites/default/files/files/policy_report/2013/GBD_GeneratingEvidence/IHME_GBD_GeneratingEvidence_FullReport.pdf

J. Potter, S., Fox, N., Smith, D., Draper, N., Moschella, E. A., & Moynihan, M. M. (2020). Sexual Assault Prevalence and Community College Students: Challenges and Promising Practices. *Health Education and Behavior*, *47*(1_suppl), 7S-16S. https://doi.org/10.1177/1090198120910988

Jancer, M. (2019, May 9). College kids who take mental health leave can't always come back. *Vice*.

Jarrett, B. A., Peitzmeier, S. M., Restar, A., Adamson, T., Howell, S., Baral, S., & Wilson Beckham, S. (2020). Gender-affirming care, mental health, and economic stability in the time of COVID-19: a global cross-sectional study of transgender and non-binary people. *MedRxiv*, 1–32. https://doi.org/10.1101/2020.11.02.20224709

Jayakumar, U. M., Garces, L. M., & Park, J. J. (2018). Reclaiming Diversity: Advancing the Next Generation of Diversity Research Toward Racial Equity. In M. B. Paulsen (Ed.), *Higher Education: Handbook of Theory and Research Vol 33* (pp. 11–79). Springer International.

Jaycox, L. H., Cohen, J. A., Mannarino, A. P., Walkder, D., Langley, A., Gegenheimer, K., … Schonlau, M. (2010). Children's Mental Health Care Following Hurricane Katrina: A Field Trial of Trauma-Focused Psychotherapies. *Journal of Traumatic Stress*, *23*(2), 223–231. https://doi.org/10.1002/jts

Jed Foundation. (2019). *Jed's Comprehensive Approach To Mental Health Promotion and Suicide Prevention*. New York. Retrieved from https://www.jedfoundation.org/wp-content/uploads/2019/08/JED-Comprehensive-Approach_FINAL_Aug12.pdf

Jenkins, D. A., Tichavakunda, A. A., & Coles, J. A. (2020). The second ID: critical race counterstories of campus police interactions with Black men at Historically White Institutions. *Race Ethnicity and Education*, *24*(2), 149–166. https://doi.org/10.1080/13613324.2020.1753672

Jenkins, D., Fink, J., & Brock, T. (2020). *More Clues from the Great Recession: How Will COVID-19 Affect Community College Funding?* Retrieved from https://ccrc.tc.columbia.edu/easyblog/community-college-funding-covid-19.html

Jenkins, R., Bhugra, D., Bebbington, P., Brugha, T., Farrell, M., Coid, J., … Meltzer, H. (2008). Debt, income and mental disorder in the general population. *Psychological Medicine*, *38*(10), 1485–1493. https://doi.org/10.1017/S0033291707002516

Joffe, P. (2008). An Empirically Supported Program to Prevent Suicide in a College Student

Population. *Suicide and Life-Threatening Behavior*, *38*(1), 87–103. https://doi.org/10.1521/suli.2008.38.1.87

John, N., Page, O., Martin, S., Whittaker, P., John, N. M., Page, O., … Whittaker, P. (2018). Impact of peer support on student mental wellbeing : a systematic review, 1–12.

Johns, M. M., Poteat, V. P., Horn, S. S., & Kosciw, J. (2019). Strengthening Our Schools to Promote Resilience and Health among LGBTQ Youth: Emerging Evidence and Research Priorities from the State of LGBTQ Youth Health and Wellbeing Symposium. *LGBT Health*, *6*(4), 146–155. https://doi.org/10.1089/lgbt.2018.0109

Johnson, B. A., & Riley, J. B. (2021). Psychosocial impacts on college students providing mental health peer support Psychosocial impacts on college students providing mental health peer support. *Journal of American College Health*, *69*(2), 232–236. https://doi.org/10.1080/07448481.2019.1660351

Johnson, M. L., Taasoobshirazi, G., Kestler, J. L., & Cordova, J. R. (2015). Models and messengers of resilience: a theoretical model of college students' resilience, regulatory strategy use, and academic achievement. *Educational Psychology*, *35*(7), 869–885. https://doi.org/10.1080/01443410.2014.893560

Johnson, R. M. (2015). Measuring the Influence of Juvenile Arrest on the Odds of Four-Year College Enrollment for Black Males: An NLSY Analysis. *Spectrum: A Journal on Black Men*, *4*(1), 49–72. Retrieved from https://doi.org/10.2979/ spectrum.4.1.04

Johnston, W. M., & Davey, G. C. L. (1997). The psychological impact of negative TV news bulletins: The catastrophizing of personal worries. *British Journal of Psychology*, *88*(1), 85–91. https://doi.org/10.1111/j.2044-8295.1997.tb02622.x

Jones-White, D. R., Soria, K. M., Tower, E. K. B., & Horner, O. G. (2020). Factors associated with anxiety and depression among U.S. doctoral students: Evidence from the gradSERU survey. *Journal of American College Health*, *0*(0), 1–12. https://doi.org/10.1080/07448481.2020.1865975

Jones, M. C., & Johnston, D. W. (2000). Reducing distress in first level and student nurses: A review of the applied stress management literature. *Journal of Advanced Nursing*, *32*(1), 66–74. https://doi.org/10.1046/j.1365-2648.2000.01421.x

Jury, M., Smeding, A., Stephens, N. M., Nelson, J. E., Aelenei, C., & Darnon, C. (2017). The Experience of Low-SES Students in Higher Education: Psychological Barriers to Success and Interventions to Reduce Social-Class Inequality. *Journal of Social Issues*, *73*(1), 23–41. https://doi.org/10.1111/josi.12202

Juvonen, J., Kogachi, K., & Graham, S. (2018). When and How Do Students Benefit From Ethnic Diversity in Middle School? *Child Development*, *89*(4), 1268–1282. https://doi.org/10.1111/cdev.12834

Kadison, R., & DiGeronimo, T. F. (2004). *College of the overwhelmed: The campus mental health crisis and what to do about it*. San Francisco, CA: Jossey-Bass.

Kafka, A. (2020, February 16). A Model Mental-Health Policy. *Chronicle of Higher Educ.Ation*.

Kalinoski, Z. T., Steele-Johnson, D., Peyton, E. J., Leas, K. A., Steinke, J., & Bowling, N. A. (2013). A meta-analytic evaluation of diversity training outcomes. *Journal of Organizational Behavior*, *34*, 1076–1104. https://doi.org/10.1002/job

Kane, E., Evans, E., & Shokraneh, F. (2018). Effectiveness of current policing-related mental health interventions: A systematic review. *Criminal Behaviour and Mental Health*, *28*(2), 108–119. https://doi.org/10.1002/cbm.2058

Kase, C., Osilla, K., Seelam, R., Woodbridge, M., & Stein, B. (2016). *A Preliminary Evaluation*

of Interactive Video Simulation Training for Campus Law Enforcement in California. Califoria. https://doi.org/10.7249/rr1389

Kataoka, S., Langley, A. K., Wong, M., Baweja, S., & Stein, B. D. (2012). Responding to Students with Posttraumatic Stress Disorder in Schools. *Child and Adolescent Psychiatric Clinics of North America*, *21*(1), 119–133. https://doi.org/10.1016/j.chc.2011.08.009

Katz, D. S., & Davison, K. (2014). Community College Student Mental Health: A Comparative Analysis. *Community College Review*, *42*(4), 307–326.

Kay, J., & Schwartz, V. (2010). *Mental Health Care in the College Community*. (J. Kay & V. Schwartz, Eds.). Oxford, UK: John Wiley & Sons.

Kearney, L. K., Draper, M., & Barón, A. (2005). Counseling utilization by ethnic minority college students. *Cultural Diversity and Ethnic Minority Psychology*, *11*(3), 272–285. https://doi.org/10.1037/1099-9809.11.3.272

Keels, M., Durkee, M., & Hope, E. (2017). The Psychological and Academic Costs of School-Based Racial and Ethnic Microaggressions. *American Educational Research Journal*, *54*(6), 1316–1344. https://doi.org/10.3102/0002831217722120

Keller, R. M., & Galgay, C. E. (2010). Microaggressions experienced by people with disabilities in US society. In D. W. Sue (Ed.), *Microaggressions and marginality: Manifestation, dynamics, and impact* (pp. 241–268). Hoboken, NJ: Wiley.

Kember, D., Lee, K., & Li, N. (2001). Cultivating a sense of belonging in part-time students. *International Journal of Lifelong Education*, *20*(4), 326–341. https://doi.org/10.1080/02601370110048809

Keng, S. L., Smoski, M. J., & Robins, C. J. (2011). Effects of mindfulness on psychological health: A review of empirical studies. *Clinical Psychology Review*, *31*(6), 1041–1056. https://doi.org/10.1016/j.cpr.2011.04.006

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime Prevalence and Age-of-Onset Distributions of of DSM-IV Disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*, *62*, 593–602. https://doi.org/10.1001/archpsyc.62.6.593

Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, Severity, and Comorbidity of 12-Month DSM-IV Disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*, *62*(6), 617–627. https://doi.org/10.1001/archpsyc.62.6.617

Keyes, C. L. M. (2007). Promoting and Protecting Mental Health as Flourishing: A Complementary Strategy for Improving National Mental Health. *American Psychologist*, *62*(2), 95–108. https://doi.org/10.1037/0003-066X.62.2.95

Keyes, C. L. M., Eisenberg, D., Perry, G. S., Dube, S. R., Kroenke, K., & Dhingra, S. S. (2012). The Relationship of Level of Positive Mental Health With Current Mental Disorders in Predicting Suicidal Behavior and Academic Impairment in College Students. *Journal of American College Health*, *60*(2), 126–133. https://doi.org/10.1080/07448481.2011.608393

Kezar, A. (2019). *Creating a Diverse Student Success Infrastructure: The Key to Catalyzing Cultural Change for Today's Student*. Los Angeles, CA.

Kezar, A., & Eckel, P. (2002). Examining the Institutional Transformation Process: The Importance of Sensemaking , Interrelated Strategies , and Balance. *Research in Higher Education*, *43*(3), 295–329.

Kidder, W. C. (2012). *The salience of racial isolation: African Americans' and Latinos' perceptions of climate and enrollment choices with and without Proposition 209*. UCLA.

Kindlon, D. J. (1983). Comparison of use of meditation and rest in treatment of test anxiety. *Psychological Reports*, *53*(3), 931–938.

King, C. A., Eisenberg, D., Zheng, K., Czyz, E., Kramer, A., Horwitz, A. G., & Chermack, S. S. (2015). Online Suicide Risk Screening and Intervention with College Students: A Pilot Randomized Controlled Trial. *J Consult Clin Psychology*, *83*(3), 630–636. https://doi.org/10.1037/a0038805

King, C. A., Hill, R. M., Wynne, H. A., & Cunningham, R. M. (2012). Adolescent Suicide Risk Screening: The Effect of Communication about Type of Follow-Up on Adolescents' Screening Responses. *Journal of Clinical Child and Adolescent Psychology*, *41*(4), 508–515. https://doi.org/10.1080/15374416.2012.680188.Adolescent

King, K. A., Strunk, C. M., & Sorter, M. T. (2011). Preliminary effectiveness of surviving the teens suicide prevention and depression awareness program on adolescents' suicidality and self-efficacy in performing help-seeking behaviors. *Journal of School Health*, *81*(9), 581–590. https://doi.org/10.1111/j.1746-1561.2011.00630.x

King, M. (1993). Academic advising: organizing and delivering services for student success. *New Directions for Community Colleges*, *82*.

Kingry-Westergaard, C., & Kelly, J. G. (1990). A contextualist epistemology for ecological research. In P. Tolan, C. Keys, F. Chertok, & L. Jason (Eds.), *Researching Community Psychology* (pp. 23–41). Washington, DC: American Psychological Association.

Kirsch, D. J., Pinder-Amaker, S. L., Morse, C., Ellison, M. L., Doerfler, L. A., & Riba, M. B. (2014). Population-Based Initiatives in College Mental Health : Students Helping Students to Overcome Obstacles. *Curr Psychiatry Rep*, *16*(525), 1–8. https://doi.org/10.1007/s11920-014-0525-1

Kiyama, J. M., & Harper, C. E. (2018). Beyond hovering: A conceptual argument for an inclusive model of family engagement in higher education. *Review of Higher Education*, *41*(3), 365–385. https://doi.org/10.1353/rhe.2018.0012

Klainberg, M., & Ryan, M. (2010). Reducing stress on a college campus. *Journal of the NY State Nurses Association*, *41*(2), 4–7.

Klimes-Dougan, B., Klingbeil, D. A., & Meller, S. J. (2013). The impact of universal suicide-prevention programs on the help-seeking attitudes and behaviors of youths. *Crisis*, *34*(2), 82–97. https://doi.org/10.1027/0227-5910/a000178

Knox, K. L., Litts, D. A., Talcott, G. W., Feig, J. C., & Caine, E. D. (2003). suicide prevention programme in the US Air Force : cohort study. *British Medical Journal*, *327*, 1376.

Knox, K. L., Pflanz, S., Talcott, G. W., Campise, R. L., Lavigne, J. E., Bajorska, A., … Caine, E. D. (2010). The US air force suicide prevention program: Implications for public health policy. *American Journal of Public Health*, *100*(12), 2457–2463. https://doi.org/10.2105/AJPH.2009.159871

Knutson, D., Matsuno, E., Goldbach, C., Hashtpari, H., & Smith, N. G. (2021). Advocating for transgender and nonbinary affirmative spaces in graduate education. *Higher Education*, (0123456789). https://doi.org/10.1007/s10734-020-00673-5

Koffel, E. A., Koffel, J. B., & Gehrman, P. R. (2015). A meta-analysis of group cognitive behavioral therapy for insomnia. *Sleep Medicine Reviews*, *19*, 6–16. https://doi.org/10.1016/j.smrv.2014.05.001

Kohn, R., Saxena, S., Levav, I., & Saraceno, B. (2004). The treatmet gap in mental health care. *Bulletin of the World Health Organization*, *82*(11), 858–866.

Kosciw, J. G., Greytak, E. A., & Diaz, E. M. (2009). Who, What, Where, When, and Why:

Demographic and Ecological Factors Contributing to Hostile School Climate for Lesbian, Gay, Bisexual, and Transgender Youth. *Journal of Youth Adolescence*, *38*, 976–988. https://doi.org/10.1007/s10964-009-9412-1

Kosciw, J. G., Greytak, E. A., Palmer, N. A., & Boesen, M. J. (2014). *The 2013 National School Climate Survey*.

Kosciw, J. G., Greytak, E., Giga, N., Villenas, C., & Danischewski, D. (2015). *The 2015 National School Climate Survey: The Experiences of Lesbian, Gay, Bisexual, Transgender, and Queer Youth in Our Nation's Schools*. New York, NY.

Kramer, R., & Remster, B. (2018). Stop, Frisk, and Assault? Racial Disparities in Police Use of Force During Investigatory Stops. *Law and Society Review*, *52*(4), 960–993. https://doi.org/10.1111/lasr.12366

Kuh, G. D. (1993). Ethos: Its influence on student learning. *Liberal Education*, *79*(4), 22–31.

Kuh, George D, Schuh, J. H., & Whitt, E. J. & A. (1991). *Involving colleges: Successful approaches to fostering student learning and development outside the classroom*. San Francisco, CA: Jossey-Bass.

Kull, R. M., Greytak, E. A., Kosciw, J. G., & Villenas, C. (2016). Effectiveness of School district antibullying policies in improving LGBT youths' school climate. *Psychology of Sexual Orientation and Gender Diversity*, *3*(4), 407–415. https://doi.org/10.1037/sgd0000196

Kuo, M., Wechsler, H., Greenberg, P., & Lee, H. (2003). The marketing of alcohol to college students: The role of low prices and special promotions. *American Journal of Preventive Medicine*, *25*(3), 204–211. https://doi.org/10.1016/S0749-3797(03)00200-9

Ladson-Billings, G, & Tate, W. (1995). Toward a critical race theory of education. *Teachers College Record*, *97*(January 1995), 47–68. https://doi.org/10.1080/10282580701850413

Ladson-Billings, Gloria. (2005). The evolving role of critical race theory in educational scholarship. *Race Ethnicity and Education*, *8*(1), 115–119. https://doi.org/10.1080/1361332052000341024

Lakey, B., & Lutz, C. (1996). Social Support and Preventive and Therapeutic Interventions. In G. R. Pierce, B. R. Sarason, & I. G. Sarason (Eds.), *Handbook of Social Support and the Family*. New York: Springer Science. https://doi.org/10.1007/978-1-4899-1388-3

Lamothe, D., Currie, F., Alisat, S., Sullivan, T., Pratt, M., Pancer, S. M., & Hunsberger, B. (1995). Impact of a Social Support Intervention on the Transition to the University. *Canadian Journal of Community*, *14*(2), 167–180.

Landers, A. J., Rollock, D., Rolfes, C. B., & Moore, D. L. (2011). Police contacts and stress among African American college students. *American Journal of Orthopsychiatry*, *81*(1), 72–81. https://doi.org/10.1111/j.1939-0025.2010.01073.x

Landers, G. M., & Zhou, M. (2011). An analysis of relationships among peer support, psychiatric hospitalization, and crisis stabilization. *Community Mental Health Journal*, *47*(1), 106–112. https://doi.org/10.1007/s10597-009-9218-3

Lanser, I., Freimer, N. B., & Craske, M. G. (2021). Reducing policing in mental health crises: A vision for university campuses. *Journal of American College Health*, *0*(0), 1–4. https://doi.org/10.1080/07448481.2021.1967363

Larzelere, R. E., Kuhn, B. R., & Johnson, B. (2004). The Intervention Selection Bias: An Underrecognized Confound in Intervention Research. *Psychological Bulletin*, *130*(2), 289–303. https://doi.org/10.1037/0033-2909.130.2.289

Lattie, E. G., Adkins, E. C., Winquist, N., Stiles-Shields, C., Wafford, Q. E., & Graham, A. K.

(2019). Digital mental health interventions for depression, anxiety and enhancement of psychological well-being among college students: Systematic review. *Journal of Medical Internet Research*, *21*(7). https://doi.org/10.2196/12869

Lau, S. S. Y., & Yang, F. (2009). Introducing healing gardens into a Compact University Campus: Design natural space to create healthy and sustainable campuses. *Landscape Research*, *34*(1), 55–81. https://doi.org/10.1080/01426390801981720

Layous, K., Davis, E. M., Garcia, J., Purdie-Vaughns, V., Cook, J. E., & Cohen, G. L. (2017). Feeling left out, but affirmed: Protecting against the negative effects of low belonging in college. *Journal of Experimental Social Psychology*, *69*, 227–231. https://doi.org/10.1016/j.jesp.2016.09.008

Le, T. P., Hsu, T., & Raposa, E. B. (2021). Effects of Natural Mentoring Relationships on College Students' Mental Health: The Role of Emotion Regulation. *American Journal of Community Psychology*, *0*, 1–10. https://doi.org/10.1002/ajcp.12504

Lederer, A. M., Hoban, M. T., Lipson, S. K., Zhou, S., & Eisenberg, D. (2021). More Than Inconvenienced: The Unique Needs of U.S. College Students During the COVID-19 Pandemic. *Health Education and Behavior*, *48*(1), 14–19. https://doi.org/10.1177/1090198120969372

Ledesma, M. C. (2016). Complicating the Binary: Towards a Discussion of Campus Climate Health. *Journal Committed to Social Change on Race and Ethnicity*, *2*(1), 5–35. https://doi.org/10.15763/issn.2642-2387.2016.2.1.5-35

Lee, R. M. (2005). Resilience against discrimination: Ethnic identity and other-group orientation as protective factors for Korean Americans. *Journal of Counseling Psychology*, *52*(1), 36–44. https://doi.org/10.1037/0022-0167.52.1.36

LeFevre, M. L., & U.S. Preventive Services Task Force. (2014). Screening for Suicide Risk in Adolescents, Adults, and Older Adults in Primary Care: U.S. Preventive Services Task Force Recommendation Statement. *Annals of Internal Medicine*, *160*(10), 719–726.

Legewie, J., & Fagan, J. (2019). Aggressive Policing and the Educational Performance of Minority Youth. *American Sociological Review*.

Lett, E., Dowshen, N. L., & Baker, K. E. (2020). Intersectionality and Health Inequities for Gender Minority Blacks in the U.S. *American Journal of Preventive Medicine*, *59*(5), 639–647. https://doi.org/10.1016/j.amepre.2020.04.013

Levin, S. (2021, June 14). Mapping the anti-trans laws sweeping America: 'A war on 100 fronts.' *The Guardian*.

LeViness, P., Bershad, C., & Gorman, K. (2017). *The Association for University and College Counseling Center Directors Annual Survey: Reporting period: July 1, 2016 through June 30, 2017*. Retrieved from https://www.aucccd.org/assets/documents/Governance/2017 aucccd survey-public-apr26.pdf

LeViness, P., Gorman, K., Braun, L., Koenig, L., & Bershad, C. (2019). *The Association for University and College Counseling Center Directors Annual Survey: 2019*. Richmond, VA. Retrieved from http://files.cmcglobal.com/AUCCCD_2013_Monograph_Public.pdf

Lien, N., Friestad, C., & Klepp, K. I. (2001). Adolescents' Proxy Reports of Parents' Socioeconomic Status: How Valid Are They? *Journal of Epidemiology and Community Health*, *55*(10), 731–737. https://doi.org/10.1136/jech.55.10.731

Lige, Q. M., Peteet, B. J., & Brown, C. M. (2017). Racial Identity, Self-Esteem, and the Impostor Phenomenon Among African American College Students. *Journal of Black Psychology*, *43*(4), 345–357. https://doi.org/10.1177/0095798416648787

Lindsey, M. A., Brandt, N. E., Becker, K. D., Lee, B. R., Barth, R. P., Daleiden, E. L., & Chorpita, B. F. (2014). Identifying the Common Elements of Treatment Engagement Interventions in Children's Mental Health Services. *Clinical Child Family Psychology Review*, *17*, 283–298. https://doi.org/10.1007/s10567-013-0163-x

Lipson, S. K. (2014). A comprehensive review of mental health gatekeeper-trainings for adolescents and young adults. *International Journal of Adolescent Medicine and Health*, *26*(3), 309–320. https://doi.org/10.1515/ijamh-2013-0320

Lipson, S. K., Gaddis, M. S., Heinze, J., Beck, K., & Eisenberg, D. (2015). Variations in Student Mental Health and Treatment Utilization Across US Colleges and Universities. *Journal of American College Health*, *63*(6), 388–396. https://doi.org/10.1080/07448481.2015.1040411

Lipson, S. K., Kern, A., Eisenberg, D., & Breland-Noble, A. M. (2018). Mental Health Disparities Among College Students of Color. *Journal of Adolescent Health*, *63*(3), 348–356. https://doi.org/10.1016/j.jadohealth.2018.04.014

Lipson, S. K., Lattie, E. G., & Eisenberg, D. (2019). Increased Rates of Mental Health Service Utilization by U.S. College Students: 10-Year Population-Level Trends (2007–2017). *Psychiatric Services*, *70*(1), 60–63. https://doi.org/10.1176/appi.ps.201800332

Lipson, S. K., Phillips, M. V., Winquist, N., Eisenberg, D., & Lattie, E. G. (2021). Mental Health Conditions Among Community College Students: A National Study of Prevalence and Use of Treatment Services. *Psychiatric Services*, *72*(10), 1126–1133. https://doi.org/10.1176/appi.ps.202000437

Lipson, S. K., Raifman, J., Abelson, S., & Reisner, S. L. (2019). Gender Minority Mental Health in the U.S.: Results of a National Survey on College Campuses. *American Journal of Preventive Medicine*, *57*(3), 293–301. https://doi.org/10.1016/j.amepre.2019.04.025

Lipson, S. K., Speer, N., Brunwasser, S., Hahn, E., Eisenberg, D., Ed, M., … Ph, D. (2014). Gatekeeper training and access to mental health care at universities and colleges. *Journal of Adolescent Health*, *55*(5), 612–619. https://doi.org/10.1016/j.jadohealth.2014.05.009

Lipson, S. K., Zhou, S., Abelson, S., Heinze, J., Jirsa, M., Morigney, J., … Eisenberg, D. (2022). Trends in College Student Mental Health and Help-Seeking by Race/Ethnicity: Findings from the national Healthy Minds Study, 2013-2021. *Journal of Affective Disorders*, *306*(1), 138–147. https://doi.org/https://doi.org/10.1016/j.jad.2022.03.038

Lipson, S. K., Zhou, S., Wagner, B., Beck, K., & Eisenberg, D. (2016). Major Differences: Variations in Undergraduate and Graduate Student Mental Health and Treatment Utilization Across Academic Disciplines. *Journal of College Student Psychotherapy*, *30*(1), 23–41. https://doi.org/10.1080/87568225.2016.1105657

Liu, C. H., Pinder-Amaker, S., Hahm, H. "Chris," & Chen, J. A. (2020). Priorities for addressing the impact of the COVID-19 pandemic on college student mental health. *Journal of American College Health*, *0*(0), 1–3. https://doi.org/10.1080/07448481.2020.1803882

Lloyd-Evans, B., Mayo-Wilson, E., Harrison, B., Istead, H., Brown, E., Pilling, S., … Kendall, T. (2014). A systematic review and meta-analysis of randomised controlled trials of peer support for people with severe mental illness. *BMC Psychiatry*, *14*(1), 1–12. https://doi.org/10.1186/1471-244X-14-39

Lo, K., Waterland, J., Todd, P., Gupta, T., Bearman, M., & Hassed, C. (2018). Group interventions to promote mental health in health professional education : a systematic review and meta- analysis of randomised controlled trials. *Advances in Health Sciences Education*, *23*(2), 413–447. https://doi.org/10.1007/s10459-017-9770-5

Long, R., Halvorson, M., & Lengua, L. J. (2021). A mindfulness-based promotive coping

program improves well-being in college undergraduates. *Anxiety, Stress, & Coping*, *0*(0), 1–14. https://doi.org/10.1080/10615806.2021.1895986

Lundahl, B., Moleni, T., Burke, B. L., Butters, R., Tollefson, D., Butler, C., & Rollnick, S. (2013). Motivational interviewing in medical care settings: A systematic review and meta-analysis of randomized controlled trials. *Patient Education and Counseling*, *93*(2), 157–168. https://doi.org/10.1016/j.pec.2013.07.012

Mahfouz, J., Levitan, J., Schussler, D., Broderick, T., Dvorakova, K., Argusti, M., & Greenberg, M. (2018). Ensuring College Student Success Through Mindfulness-Based Classes: Just Breathe. *College Student Affairs Journal*, *36*(1), 1–16. https://doi.org/10.1353/csj.2018.0000

Makomenaw, M. (2014). Goals, family, and community: What drives Tribal College transfer student success. *Journal of Student Affairs Research and Practice*, *51*(4), 380–391. https://doi.org/10.1515/jsarp-2014-0039

Mann, J. J., Haas, A., Mehlum, L., & Phillips, M. (2005). Suicide Prevention Strategies: A Systematic Review. *JAMA*, *294*(16), 2064–2074. Retrieved from https://jamanetwork.com/journals/jama/fullarticle/201761

Margolis, G. J., & Shtull, P. R. (2012). The Police Response to Mental Illness on Campus. *Journal of College Student Psychotherapy*, *26*(4), 307–321. https://doi.org/10.1080/87568225.2012.711179

Marksteiner, T., Janke, S., & Dickhäuser, O. (2019). Effects of a brief psychological intervention on students' sense of belonging and educational outcomes: The role of students' migration and educational background. *Journal of School Psychology*, *75*(June 2018), 41–57. https://doi.org/10.1016/j.jsp.2019.06.002

Marowski, S. (2021, January 14). Task force will examine public safety practices at University of Michigan. *MLive*.

Martinez, J. A., Johnson, D. N., & Jones, J. A. (2018). Beyond punishment: the impacts of medical amnesty in a U.S. Residential college context. *Drugs: Education, Prevention and Policy*, *25*(3), 248–253. https://doi.org/10.1080/09687637.2016.1272099

Masuda, A., Anderson, P. L., Twohig, M. P., Feinstein, A. B., Chou, Y., Wendell, J. W., & Stormo, A. R. (2009). Help-Seeking Experiences and Attitudes among African American, Asian American, and European American College Students. *International Journal for the Advancement of Counseling*, *31*, 168–180. https://doi.org/10.1007/s10447-009-9076-2

Matsuno, E. (2019). Nonbinary-Affirming Psychological Interventions. *Cognitive and Behavioral Practice*, *26*(4), 617–628. https://doi.org/10.1016/j.cbpra.2018.09.003

Mattanah, J. F., Ayers, J. F., Brand, B. L., Brooks, L. J., Quimby, L., Mcnary, S. W., … Mcnary, S. W. (2010). A Social Support Intervention to Ease the College Transition: Exploring Main Effects and Moderators. *Journal of College Student Development*, *51*(1), 93–108.

Mattanah, J. F., Brooks, L. J., Brand, B. L., Quimby, J. L., & Ayers, J. F. (2012). A Social Support Intervention and Academic Achievement in College: Does Perceived Loneliness Mediate the Relationship? *Journal of College Counseling*, *15*(April), 22–36.

Mattanah, J. F., Lopez, F. G., & Govern, J. M. (2015). The Contributions of Parental Attachment Bonds to College Student Development and Adjustment. *Journal of Counseling Psychology*, (August 2011). https://doi.org/10.1037/a0024635

Matusek, J. A., Wendt, S. J., & Wiseman, C. V. (2004). Dissonance thin-ideal and didactic healthy behavior eating disorder prevention programs: Results from a controlled trial. *International Journal of Eating Disorders*, *36*(4), 376–388.

https://doi.org/10.1002/eat.20059

Mayhew, M. J., Rockenbach, A. N., Bowman, N. A., Seifert, T. A. D., Wolniak, G. C., Pascarella, E. T., & Terenzini, P. T. (2016). *How College Affects Students: 21st Century Evidence that Higher Education Works, Volume 3*. San Francisco, CA: Jossey-Bass.

Mbuba, J. M. (2010). Attitudes Toward the Police: The significance of race and other factors among college students. *Journal of Ethnicity in Criminal Justice*, 8(3), 201–215. https://doi.org/10.1080/15377938.2010.502846

McAleavey, A. A., Youn, S. J., Xiao, H., Castonguay, L. G., Hayes, J. A., & Locke, B. D. (2019). Effectiveness of routine psychotherapy: Method matters. *Psychotherapy Research*, 29(2), 139–156. https://doi.org/10.1080/10503307.2017.1395921

McCabe, J. (2009). Racial and gender microaggressions on a predominantly-White campus: Experiences of Black, Latina/o and White undergraduates. *Race, Gender & Class*, 16, 133–151.

McCabe, P. C., Dragowski, E. A., & Rubinson, F. (2013). What Is Homophobic Bias Anyway? Defining and Recognizing Microaggressions and Harassment of LGBTQ Youth. *Journal of School Violence*, 12(1), 7–26. https://doi.org/10.1080/15388220.2012.731664

McDonald, T., Pritchard, M., & Landrum, R. (2006). Facilitating preventative mental health interventions for college students: institutional and individual strategies. In MV Landow (Ed.), *Stress and Mental Health of College Students* (pp. 225–241). New York, NY: Nova Science Publishers.

McDowell, A., Raifman, J., Progovac, A. M., & Rose, S. (2020). Association of Nondiscrimination Policies with Mental Health among Gender Minority Individuals. *JAMA Psychiatry*, 02115, 1–7. https://doi.org/10.1001/jamapsychiatry.2020.0770

Mcdowell, M. J., Hughto, J. M. W., & Reisner, S. L. (2019). Risk and protective factors for mental health morbidity in a community sample of female-to-male trans-masculine adults. *BMC Psychiatry*, 19(16), 1–12.

McFarland, J., Hussar, B., Wang, X., Zhang, J., Wang, K., Rathbun, A., … Bullock Mann, F. (2018). *The Condition of Education 2018 (NCES 2018-144)*. *U.S. Department of Education*. Washington, D.C. Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018144

McGregor, K. M. (2016). Raped a Second Time: The Mental Health Impact of Campus Sexual Assault Investigation and Adjudication. *Quinnipiac Health Law Journal*, 18(3), 401–430.

Mcguire, J. K., Anderson, C. R., Toomey, R. B., & Russell, S. T. (2010). School Climate for Transgender Youth: A Mixed Method Investigation of Student Experiences and School Responses. *Journal of Youth Adolescence*, 39, 1175–1188. https://doi.org/10.1007/s10964-010-9540-7

McLaren, L., & Hawe, P. (2005). Ecological perspectives in health research. *Journal of Epidemiology and Community Health*, 59(1), 6–14. https://doi.org/10.1136/jech.2003.018044

McLean, K., & Swanbrow Becker, M. A. (2018). Bridging the Gap: Connecting Resident Assistants and Suicidal Residents Through Gatekeeper Training. *Suicide and Life-Threatening Behavior*, 48(2), 218–229. https://doi.org/10.1111/sltb.12348

Mcleroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An Ecological Perspective on Health Promotion Programs. *Health Education & Behavior*, 15(4), 351–377. https://doi.org/10.1177/109019818801500401

McNair, T. B., Albertine, S., Cooper, M. A., McDonald, N., & Major, T. J. (2016). *Becoming a*

Student-Ready College: A New Culture of Leadership for Student Success. Jossey-Bass.

McQuillin, S. D., Lyons, M. D., Clayton, R. J., & Anderson, J. R. (2020). Assessing the impact of school-based mentoring: Common problems and solutions associated with evaluating nonprescriptive youth development programs. *Applied Developmental Science*, *24*(3), 215–229. https://doi.org/10.1080/10888691.2018.1454837

McWilliams, A. T. (2020, December 14). Defund Campus Police. *Slate*. Retrieved from https://slate.com/news-and-politics/2020/12/defund-campus-police.html

Mehta, N., Clement, S., Marcus, E., Stona, A. C., Bezborodovs, N., EvansLacko, S., … Thornicroft, G. (2015). Evidence for effective interventions to reduce mental Healthrelated stigma and discrimination in the medium and long term: Systematic review. *British Journal of Psychiatry*, *207*(5), 377–384. https://doi.org/10.1192/bjp.bp.114.151944

Meiklejohn, J., Phillips, C., Freedman, M. L., Griffin, M. L., Biegel, G., Roach, A., … Saltzman, A. (2012). Integrating Mindfulness Training into K-12 Education: Fostering the Resilience of Teachers and Students. *Mindfulness*, *3*(4), 291–307. https://doi.org/10.1007/s12671-012-0094-5

Meilman, P. W. (2016). Conforming a Voluntary Medical Leave of Absence Policy to Recent Interpretations of Disability Law. *Journal of College Student Psychotherapy*, *30*(1), 54–63. https://doi.org/10.1080/87568225.2016.1105665

Merikangas, K., Jian-ping, H., Burstein, M., Swanson, S., Avenevoli, S., Lihong, C., … Swendsen, J. (2011). Lifetime Prevalence of Mental Disorders in US Adolescents: Results from the National Comorbidity Study-Adolescent Supplement. *Journal of the American Academy Children Adolescent Psychiatry*, *49*(10), 980–989. https://doi.org/10.1016/j.jaac.2010.05.017.Lifetime

Merikangas, K. R., He, J., Burstein, M. E., Swendsen, J., Avenevoli, S., Case, B., … Olfson, M. (2011). Service Utilization for Lifetime Mental Disorders in U.S. Adolescents: Results of the National Comorbidity Survey Adolescent Supplement (NCS-A). *Journal of Academic Child and Adolescent Psychiatry*, *50*(3), 32–45. https://doi.org/10.1016/j.jaac.2010.10.006

Messman, J. B., & Leslie, L. A. (2019). Transgender college students: Academic resilience and striving to cope in the face of marginalized health. *Journal of American College Health*, *67*(2), 161–173. https://doi.org/10.1080/07448481.2018.1465060

Meyer, I. H. (2003). Prejudice, Social Stress, and Mental Health in Lesbian, Gay, and Bisexual Populations: Conceptual Issues and Research Evidence. *Psychological Bulletin*, *129*(5), 674–697. https://doi.org/10.1037/0033-2909.129.5.674

Mezey, L. (2021). Navigating a Leave of Absence. In M. B. Riba & M. Menon (Eds.), *College Psychiatry: Strategies to Improve Access to Mental Health* (pp. 113–122). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-69468-5_8

Michaud, C. M., McKenna, M. T., Begg, S., Tomijima, N., Majmudar, M., Bulzacchelli, M. T., … Murray, C. J. L. (2006). The burden of disease and injury in the United States 1996. *Population Health Metrics*, *4*, 11. https://doi.org/10.1186/1478-7954-4-11

Michelmore, L., & Hindley, P. (2012). Help-seeking for suicidal thoughts and self-harm in young people: A systematic review. *Suicide and Life-Threatening Behavior*, *42*(5), 507–524. https://doi.org/10.1111/j.1943-278X.2012.00108.x

Milburn, K. (1995). A critical review of peer education with young people with special reference to sexual health. *Health Education Research*, *10*(4), 407–420. https://doi.org/10.1093/her/10.4.407

Milem, J. F., Chang, M. J., & Antonio, A. L. (2005). *Making Diversity Work on Campus: A*

Research-Based Perspective. Making Excellence Inclusive. Washington, D.C. Retrieved from http://www.wesleyan.edu/partnerships/mei/files/makingdiiversityworkoncampus.pdf

Milem, J. F., Dey, E. L., & White, C. B. (2004). Diversity Considerations in Health Professions Education. In B. D. Smedley, A. S. Butler, & L. R. Bristow (Eds.), *In the nation's compelling interest: Ensuring diversity in the health care workforce* (pp. 345–390). Washington, D.C.: National Academies Press. Retrieved from https://www.nap.edu/read/10885/chapter/15#350

Miller, D. N., & Mazza, J. J. (2018). School-Based Suicide Prevention, Intervention, and Postvention. In A. Leschied, D. Saklofske, & G. Flett (Eds.), *The Handbook of School-Based Mental Health Promotion: An Evidence-Informed Framework for Implementation* (pp. 261–277). New York: Springer. https://doi.org/10.1007/978-3-319-89842-1_15

Miller, J., & Donner, S. (2000). More than just talk: The use of racial dialogues to combat racism. *Social Work with Groups*, *23*(1), 31–53. https://doi.org/10.1300/J009v23n01_03

Miller, M., & Hemenway, D. (2008). Guns and Suicide in the United States. *The New England Journal of Medicine*, *359*(10), 989–991.

Mills, K. J. (2020). "It's systemic": Environmental racial microaggressions experienced by Black undergraduates at a predominantly White institution. *Journal of Diversity in Higher Education*, *13*(1), 44–55. https://doi.org/10.1037/dhe0000121

Mistler, B. J., Ph, D., Reetz, D. R., Ph, D., Krylowicz, B., Ph, D., … Ph, D. (2012). The Association for University and College Counseling Center Directors Annual Survey, 1–191.

Mitchell, K. S., Mazzeo, S. E., Rausch, S. M., & Cooke, K. L. (2007). Innovative Interventions for Disordered Eating: Evaluating Dissonance-Based and Yoga Interventions. *OInternational Journal*, (September), 27–30. https://doi.org/10.1002/eat

Mitchell, S. L., Kader, M., Darrow, S. A., Haggerty, M. Z., & Keating, N. L. (2013). Evaluating Question, Persuade, Refer (QPR) Suicide Prevention Training in a College Setting. *Journal of College Student Psychotherapy*, *27*(2), 138–148.

Mittal, D., Sullivan, G., Chekuri, L., Allee, E., & Corrigan, P. W. (2012). Empirical studies of self-stigma reduction strategies: A critical review of the literature. *Psychiatric Services*, *63*(10), 974–981. https://doi.org/10.1176/appi.ps.201100459

Mojtabai, R., Olfson, M., & Han, B. (2016). National trends in the prevalence and treatment of depression in adolescents and young adults. *Pediatrics*, *138*(6). https://doi.org/10.1542/peds.2016-1878

Monti, P. M., & et al. (1979). Effect of social skills training groups and social skills bibliotherapy with psychiatric patients. *Journal of Consulting and Clinical Psychology*, *47*(1), 189–191. https://doi.org/10.1037//0022-006x.47.1.189

Monti, P. M., & et al. (1980). Effects of social skills training groups and sensitivity training groups with psychiatric patients. *Journal of Consulting and Clinical Psychology*, *48*(2), 241–248. https://doi.org/10.1037/0022-006X.48.2.241

Morabito, M. S., Kerr, A. N., Watson, A., Draine, J., Ottati, V., & Angell, B. (2012). Crisis Intervention Teams and People With Mental Illness: Exploring the Factors That Influence the Use of Force. *Crime & Delinquency*, *58*(1), 57–77.

Morabito, M. S., Watson, A., & Draine, J. (2013). Police officer acceptance of new innovation: the case of crisis intervention teams. *Policing, 36*(2), 421–436.

Morris, C. A. W., Taub, D. J., Servaty-Seib, H. L., Lee, J. Y., Miles, N., Werden, D., & Prieto-Welch, S. L. (2015). Expanding capacity for suicide prevention: The ALIVE @ Purdue train-the-trainers program. *Journal of College Student Development*, *56*(8), 861–866.

https://doi.org/10.1353/csd.2015.0084

Morris, M. R. (2021). The Parent Factor: Collaborating with Parents to Promote Mental Health Treatment. In M. B. Riba & M. Menon (Eds.), *College Psychiatry: Strategies to Improve Access to Mental Health* (pp. 37–54). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-69468-5_3

Morse, C. C., & Schulze, R. (2013). Enhancing the Network of Peer Support on College Campuses. *Journal of College Student Psychotherapy*, *27*(3), 212–225. https://doi.org/10.1080/87568225.2013.798222

Mounts, N. S. (2004). Contributions of Parenting and Campus Climate to Freshmen Adjustment in a Multiethnic Sample. *Journal of Adolescent Research*, *19*(4), 468–491. https://doi.org/10.1177/0743558403258862

Moutier, C., Norcross, W., Jong, P., Norman, M., Kirby, B., McGuire, T., & Zisook, S. (2012). The suicide prevention and depression awareness program at the university of California, San Diego school of medicine. *Academic Medicine*, *87*(3), 320–326. https://doi.org/10.1097/ACM.0b013e31824451ad

Movement Advancement Project, T. (2017). *Mapping Transgender Equality in the United States*. Denver, CO. Retrieved from http://www.lgbtmap.org/file/mapping-trans-equality.pdf

Mueller, A. S., James, W., Abrutyn, S., & Levin, M. L. (2015). Suicide ideation and bullying among US adolescents: Examining the intersections of sexual orientation, gender, and race/ethnicity. *American Journal of Public Health*, *105*(5), 981–985. https://doi.org/10.2105/AJPH.2014.302391

Murdock-Perriera, L. A., Boucher, K. L., Carter, E. R., & Murphy, M. C. (2019). Places of Belonging: Person- and Place-Focused Interventions to Support Belonging in College. *Higher Education: Handbook of Theory and Research*, *34*, 291–323. https://doi.org/10.1007/978-3-030-03457-3_7

Murphy, M., & Destin, M. (2016). *Promoting Inclusion and Identity Safety to Support College Success*. Retrieved from https://tcf.org/content/report/promoting-inclusion-identity-safety-support-college-success/

Murthy, R., Bertolote, J., Epping-Jordan, J., Funk, M., Prentice, T., Saraceno, B., & Saxena, S. (2001). *The World Health Report: 2001: Mental Health: New Understanding, New Hope*. Geneva, Switzerland. Retrieved from https://books.google.com/books?id=GQEdA-VFSIgC&lpg=PR9&ots=d0XATFhivE&dq=causes of mental health disorders&lr&pg=PR5#v=onepage&q=causes of mental health disorders&f=false

Museus, S. D. (2008). The Role of Ethnic Student Organizations in Fostering African American and Asian American Students' Cultural Adjustment and Membership at Predominantly White Institutions. *Journal of College Student Development*, *49*(6), 568–586. https://doi.org/10.1353/csd.0.0039

Nadal, K. L., Issa, M.-A., Griffin, K. E., Hamit, S., & Lyons, O. B. (2010). Religious microaggressions in the United States: Mental health implications for religious minority groups. In D. W. Sue (Ed.), *Microaggressions and marginality: Manifestation, dynamics, and impact* (pp. 287–310). John Wiley & Sons Inc.

Nadal, K. L., Rivera, D. P., & Corpus, M. J. H. (2010). Sexual orientation and transgender microaggressions: Implications for mental health and counseling. In D. W. Sue (Ed.), *Microaggressions and marginality: Manifestation, dynamics, and impact* (pp. 217–240). John Wiley & Sons Inc.

Nadal, Kevin L., Issa, M. A., Leon, J., Meterko, V., Wideman, M., & Wong, Y. (2011). Sexual

orientation microaggressions: "Death by a thousand cuts" for lesbian, gay, and bisexual youth. *Journal of LGBT Youth*, *8*(3), 234–259. https://doi.org/10.1080/19361653.2011.584204

Nadal, Kevin L., Mazzula, S. L., Rivera, D. P., & Fujii-Doe, W. (2014). Microaggressions and Latina/o Americans: An analysis of nativity, gender, and ethnicity. *Journal of Latina/o Psychology*, *2*(2), 67–78. https://doi.org/10.1037/lat0000013

Nadal, Kevin L., Skolnik, A., & Wong, Y. (2012). Interpersonal and systemic microaggressions toward transgender people: Implications for counseling. *Journal of LGBT Issues in Counseling*, *6*(1), 55–82. https://doi.org/10.1080/15538605.2012.648583

Nagasawa, R., & Wong, P. (1999). A theory of minority students' survival in college. *Sociological Inquiry*, *69*(1), 76–90. https://doi.org/10.1111/j.1475-682X.1999.tb00490.x

National Academies of Sciences, Engineering, and M. (2020). *Understanding the Well-Being of LGBTQI+ Populations*. Washington, D.C. https://doi.org/10.17226/25877

National Academies of Sciences Engineering & Medicine. (2021). *Mental Health, Substance Use, and Wellbeing in Higher Education. Mental Health, Substance Use, and Wellbeing in Higher Education*. Washington DC: The National Academies Press. https://doi.org/10.17226/26015

National Center for Transgender Equality. (2015). Reforming Police and Ending Anti-Transgender Violence, 27–30.

National Council on Disability. (2017). *Mental health on college campuses: Investments, accommodations needed to address student needs*. Washington, D.C. Retrieved from https://ncd.gov/sites/default/files/NCD_Mental_Health_Report_508_0.pdf

NCES. (2019). Undergraduate Enrollment. Retrieved July 15, 2021, from https://nces.ed.gov/programs/coe/indicator/cha

Neff, K. (2011). *Self-compassion: The proven power of being kind to yourself*. New York, NY: HarperCollins Publishers.

Nelson, B., Froehner, M., & Gault, B. (2013). *College Students with Children are Common and Face many Challenges in Completing Higher Education. Institute for Women's Policy Research*. Washington, D.C. Retrieved from http://www.iwpr.org/publications/pubs/college-students-with-children-are-common-and-face-many-challenges-in-completing-higher-education-summary

Newton, F. B., Ender, S. C., & Gardner, J. N. (2010). *Students Helping Students: A Guide for Peer Educators on College Campuses* (2nd ed.). San Francisco: Jossey Bass.

Newton, J., Dooris, M., & Wills, J. (2016). Healthy universities: an example of a whole-system health-promoting setting. *Global Health Promotion*, *23*(June), 57–65. https://doi.org/10.1177/1757975915601037

Nguyen, T. D., Kramer, J. W., & Evans, B. J. (2019). The Effects of Grant Aid on Student Persistence and Degree Attainment: A Systematic Review and Meta-Analysis of the Causal Evidence. *Review of Educational Research*, *89*(6), 831–874. https://doi.org/10.3102/0034654319877156

Nickeas, P. (2021, June 4). More than a dozen cities push to minimize or even eliminate police presence at mental health calls. *CNN*. Retrieved from https://www.cnn.com/2021/06/04/us/police-alternate-response-mental-health/index.html

Nicolazzo, Z., Pitcher, E. N., Renn, K. A., & Woodford, M. R. (2017). An exploration of trans* kinship as a strategy for student success. *International Journal of Qualitative Studies in Education*, *30*(3), 305–319. https://doi.org/10.1080/09518398.2016.1254300

Nolan, K. (2011). *Police in the hallways*. University of Minnesota Press.

Nolan, S. E. M., Khan, T. A., & Banks, A. M. (2018). Designing and Evaluating Prevention and Risk Reduction Programs for High-Risk and Marginalized Target Populations: Lessons Learned. In M. D. Cimini & E. M. Rivero (Eds.), *Promoting Behavioral Health and Reducing Risk Among College Students*. New York and London: Routledge.

Nora, A., Barlow, L., & Crisp, G. (2006). Examining the tangible and psychosocial benefits of financial aid with student access, engagement, and degree attainment. *American Behavioral Scientist*, *49*(12), 1636–1651. https://doi.org/10.1177/0002764206289143

Nordberg, A., Crawford, M. R., Praetorius, R. T., & Hatcher, S. S. (2016). Exploring Minority Youths' Police Encounters: A Qualitative Interpretive Meta-synthesis. *Child and Adolescent Social Work Journal*, *33*(2), 137–149. https://doi.org/10.1007/s10560-015-0415-3

Nordberg, A., Twis, M. K., Stevens, M. A., & Hatcher, S. S. (2018). Precarity and structural racism in Black youth encounters with police. *Child and Adolescent Social Work Journal*, *35*(5), 511–518. https://doi.org/10.1007/s10560-018-0540-x

Nuñez, A. M., & Kim, D. (2012). Building a multicontextual model of Latino college enrollment: Student, school, and state-level effects. *Review of Higher Education*, *35*(2), 237–263. https://doi.org/10.1353/rhe.2012.0004

O'Connell, M., Boat, T., & Warner, K. (2009). *Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities*. Washington, DC: The National Academies Press.

O'Connor, E., Gaynes, B. N., Burda, B. U., Soh, C., & Whitlock, E. P. (2013). Screening for and treatment of suicide risk relevant to primary care: A systematic review for the U.S. Preventive services task force. *Annals of Internal Medicine*, *158*(10), 741–754. https://doi.org/10.7326/0003-4819-158-10-201305210-00642

O'Donnell, I., Arthur, A. J., & Farmer, R. D. J. (1994). A follow-up study of attempted railway suicides. *Social Science and Medicine*, *38*(3), 437–442. https://doi.org/10.1016/0277-9536(94)90444-8

O'Meara, K., Griffin, K. A., Kuvaeva, A., Nyunt, G., & Robinson, T. (2017). Sense of Belonging and Its Contributing Factors in Graduate Education. *International Journal of Doctoral Studies*, *12*(December 2017), 251–279. https://doi.org/10.28945/3903

O'Shaughnessy, M., Russel, S., Heck, K., Calhounn, C., & Laub, C. (2004). *A safe place to learn: Consequences of harassment based on actual or perceived sexual orientation or gender non-conformity and steps for making schools safer*. San Francisco, CA.

Oades, L. G., Robinson, P., Green, S., & Spence, G. B. (2011). Towards a positive university. *Journal of Positive Psychology*, *6*(6), 432–439. https://doi.org/10.1080/17439760.2011.634828

Office of the Surgeon General. (2021a). *Confronting Health Misinformation: The U.S. Surgeon General's Advisory on Building a Healthy Information Environment*.

Office of the Surgeon General. (2021b). *Protecting Youth Mental Health: The U.S. Surgeon General's Advisory*. Washington DC.

Ogunyemi, D., Clare, C., Astudillo, Y. M., Marseille, M., Manu, E., & Kim, S. (2020). Microaggressions in the learning environment: A systematic review. *Journal of Diversity in Higher Education*, *13*(2), 97–119. https://doi.org/10.1037/dhe0000107

Oh, H., DeVylder, J., & Hunt, G. (2017). Effect of police training and accountability on the mental health of African American Adults. *American Journal of Public Health*, *107*(10), 1588–1590. https://doi.org/10.2105/AJPH.2017.304012

Olsen, T., Badger, K., & MccCuddy, Mi. D. (2014). Understanding the Student Veterans' College Experience: An Exploratory Study. *The Army Medical Department Journal*, (Oct-Dec), 101–108.

Oman, D., Shapiro, S. L., Thoresen, C. E., Plante, T. G., & Flinders, T. (2008). Meditation lowers stress and supports forgiveness among college students: A randomized controlled trial. *Journal of American College Health*, *56*(5), 569–578. https://doi.org/10.3200/JACH.56.5.569-578

Organ, J. M., Jaffe, D. B., & Bender, K. M. (2016). Suffering in Silence: The Survey of Law Student Well-Being and the Reluctance of Law Students to Seek Help for Substance Use and Mental Health Concerns. *Journal of Legal Education*, *66*(1), 116–156.

Orme, J., & Dooris, M. (2010). Integrating health and sustainability: The higher education sector as a timely catalyst. *Health Education Research*, *25*(3), 425–437. https://doi.org/10.1093/her/cyq020

Oster-Aaland, L., & Eighmy, M. A. (2011). Medical Amnesty Policies: Research is Needed. *Journal of Student Affairs Research and Practice*, *44*(4). https://doi.org/10.2202/1949-6605.1865

Oster-Aaland, L., Thompson, K., & Eighmy, M. (2011). The Impact of an Online Educational Video and a Medical Amnesty Policy on College Students' Intentions to Seek Help in the Presence of Alcohol Poisoning Symptoms. *Journal of Student Affairs Research and Practice*, *48*(2), 147–164. https://doi.org/10.2202/1949-6605.6305

Osterman, K. F. (2000). Students' Need for Belonging in the School Community. *Review of Educational Research*, *70*(3), 323–367.

Ostrove, J. M., Stewart, A. J., & Curtin, N. L. (2011). Social Class and Belonging: Implications for Graduate Students' Career Aspirations. *The Journal of Higher Education*, *82*(6), 748–774. https://doi.org/10.1353/jhe.2011.0039

Oswalt, S. B., Lederer, A. M., Chestnut-Steich, K., Day, C., Halbritter, A., & Ortiz, D. (2020). Trends in college students' mental health diagnoses and utilization of services, 2009–2015. *Journal of American College Health*, *68*(1), 41–51. https://doi.org/10.1080/07448481.2018.1515748

Oswalt, S., & Lederer, A. (2017). Beyond Depression and Suicide: The Mental Health of Transgender College Students. *Social Sciences*, *6*(1), 20. https://doi.org/10.3390/socsci6010020

Padgett, D. K., Patrick, C., Burns, B. J., & Schlesinger, H. J. (1994). Ethnic differences in use of inpatient mental health services by blacks, whites, and Hispanics in a national insured population. *Health Services Research*, *29*(2), 135–153. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/8005786%5Cnhttp://www.ncbi.nlm.nih.gov/pmc/articles/PMC1069995/pdf/hsresearch00052-0008.pdf

Page, L. C., & Scott-Clayton, J. (2016). Improving college access in the United States: Barriers and policy responses. *Economics of Education Review*, *51*, 4–22. https://doi.org/10.1016/j.econedurev.2016.02.009

Palmer, R. C., Ismond, D., Rodriquez, E. J., & Kaufman, J. S. (2019). Social Determinants of Health: Future Directions for Health Disparities Research. *American Journal of Public Health*, *109*(S1), S70–S71. https://doi.org/10.2105/ajph.2019.304964

Paluck, E. L. (2006). Diversity training and intergroup contact: A call to action research. *Journal of Social Issues*, *62*(3), 577–595. https://doi.org/10.1111/j.1540-4560.2006.00474.x

Paluck, E. L., & Green, D. P. (2009). Prejudice reduction: What works? a review and assessment

of research and practice. *Annual Review of Psychology*, *60*, 339–367. https://doi.org/10.1146/annurev.psych.60.110707.163607

Panchal, N., Kamal, R., Orgera, K., Cox, C., Garfield, R., Hamel, L., … Chidambaram, P. (2020). *The implications of COVID-19 for mental health and substance use*. Washington, DC.

Parker-Pope, T. (2021, December 16). We Surveyed 1,320 Therapists, and the News Isn't Good. *New York Times*.

Parks, A. C. (2011). The state of positive psychology in higher education: Introduction to the special issue. *Journal of Positive Psychology*, *6*(6), 429–431. https://doi.org/10.1080/17439760.2011.637729

Parr, N. J. (2020). Differences in the age-varying association of school belonging with socioemotional flourishing among minority and non-minority college and university students. *Journal of American College Health*, *0*(0), 1–5. https://doi.org/10.1080/07448481.2020.1808662

Pascarella, E. T. (2006). How College Affects Students: Ten Directions for Future Research. *Journal of College Student Development*, *47*(5), 508–520. https://doi.org/10.1353/csd.2006.0060

Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: Findings and insights from twenty years of research* (2nd ed.). San Francisco, CA: Jossey-Bass.

Patterson, J. G., Jabson, J. M., & Bowen, D. J. (2017). Measuring Sexual and Gender Minority Populations in Health Surveillance. *LGBT Health*, *4*(2), 82–105. https://doi.org/10.1089/lgbt.2016.0026

Payne, E., & Smith, M. (2010). Reduction of Stigma in Schools: An Evaluation of the First Three Years. *Issues in Teacher Education*, *19*(2), 11–36. Retrieved from http://search.proquest.com/docview/815959604?accountid=12253

Pearce, K., Rickwood, D. J., & Beaton, S. (2003). Preliminary evaluation of a university-based suicide intervention project: Impact on participants. *Australian E-Journal for the Advancement of Mental Health*, *2*(1), 1–11. https://doi.org/10.5172/jamh.2.1.25

Pearlin, L. I., & Bierman, A. (2013). Current issues and future directions in research into the stress process. In C. S. Aneshensel, J. C. Phelan, & A. Bierman (Eds.), *Handbook of the Sociology of Mental Health* (Second, pp. 325–340). Dordrecht: Springer. https://doi.org/10.1007/0-387-36223-1

Peck, J. H. (2015). State-of-the-art review minority perceptions of the police: A state-of-the-art review. *Policing*, *38*(1), 173–203. https://doi.org/10.1108/PIJPSM-01-2015-0001

Pedrelli, P., Borsari, B., Lipson, S. K., Heinze, J. E., & Eisenberg, D. (2016). Gender Differences in the Relationships Among Major Depressive Disorder, Heavy Alcohol Use, and Mental Health Treatment Engagement Among College Students. *Journal of Studies on Alcohol and Drugs*, *77*(4), 620–628. https://doi.org/10.15288/jsad.2016.77.620

Pedrelli, P., Nyer, M., Yeung, A., Zulauf, C., & Wilens, T. (2015). College students: Mental health problems and treatment considerations. *Academic Psychiatry*, *39*(5), 503–511. https://doi.org/10.1007/s40596-014-0205-9

Pelfrey, W. V., Keener, S., & Perkins, M. (2018). Examining the Role of Demographics in Campus Crime Alerts: Implications and Recommendations. *Race and Justice*, *8*(3), 244–269. https://doi.org/10.1177/2153368716675475

Peña, J. B., & Caine, E. D. (2006). Screening as an Approach for Adolescent Suicide Prevention. *Suicide and Life-Threatening Behavior*, *36*(6), 614–637.

https://doi.org/10.1521/suli.2006.36.6.614

Perez-Brumer, A., Hatzenbuehler, M. L., Oldenburg, C. E., & Bockting, W. (2015). Individual- and Structural-Level Risk Factors for Suicide Attempts among Transgender Adults. *Behavioral Medicine*, *41*(3), 164–171. https://doi.org/10.1080/08964289.2015.1028322.Individual-

Perna, L. W., & Thomas, S. L. (2008). Theoretical Perspectives on Student Success. *On the Horizon*, *33*(4), 0–13. https://doi.org/10.1002/aehe.3401

Peter, T., Roberts, L. W., & Dengate, J. (2011). Flourishing in Life: An Empirical Test of the Dual Continua Model of Mental Health and Mental Illness among Canadian University Students. *International Journal of Mental Health Promotion*, *13*(1), 13–22. https://doi.org/10.1080/14623730.2011.9715646

Pfeiffer, P. N., Heisler, M., Piette, J. D., Ph, D., Mary, A. M., & Valenstein, M. (2012). Efficacy of Peer Support for Depression. *General Hospital Psychiatry*, *33*(1), 29–36. https://doi.org/10.1016/j.genhosppsych.2010.10.002.Efficacy

Pfeiffer, P. N., Heisler, M., Piette, J. D., Rogers, M. A. M., & Valenstein, M. (2011). Efficacy of peer support interventions for depression: A meta-analysis. *General Hospital Psychiatry*, *33*(1), 29–36. https://doi.org/10.1016/j.genhosppsych.2010.10.002

Pieterse, A. L., Carter, R. T., Evans, S. A., & Walter, R. A. (2010). An exploratory examination of the associations among racial and ethnic discrimination, racial climate, and trauma-related symptoms in a college student population. *J Couns Psychol*, *57*(3), 255–263. https://doi.org/10.1037/a0020040

Pike, G. R., Smart, J. C., Kuh, G. D., & Hayek, J. C. (2006). Educational expenditures and student engagement: When does money matter? *Research in Higher Education*, *47*(7), 847–872. https://doi.org/10.1007/s11162-006-9018-3

Pineda, J., & Dadds, M. R. (2013). Family intervention for adolescents with suicidal behavior: A randomized controlled trial and mediation analysis. *Journal of the American Academy of Child and Adolescent Psychiatry*, *52*(8), 851–862. https://doi.org/10.1016/j.jaac.2013.05.015

Pitcher, E. N., Camacho, T. P., Renn, K. A., & Woodford, M. R. (2018). Affirming Policies, Programs, and Supportive Services: Using an Organizational Perspective to Understand LGBTQ+ College Student Success. *Journal of Diversity in Higher Education*, *11*(2), 117–132.

Pittman, L. D., & Richmond, A. (2008). University Belonging, Friendship Quality, and Psychological Adjustment During the Transition to College. *The Journal of Experimental Education*, *76*(4), 343–361. https://doi.org/10.3200/JEXE.76.4.343-362

Pizzolato, J. E., & Hicklen, S. (2011). Parent involvement: Investigating the parent-child relationship in Millennial college students. *Journal of College Student Development*, *52*(6), 671–686. https://doi.org/10.1353/csd.2011.0081

Platt, L. F., & Lenzen, A. L. (2013). Sexual Orientation Microaggressions and the Experience of Sexual Minorities. *Journal of Homosexuality*, *60*(7), 1011–1034. https://doi.org/10.1080/00918369.2013.774878

Posselt, J. (2021). Discrimination, competitiveness, and support in US graduate student mental health. *Studies in Graduate and Postdoctoral Education*. Retrieved from https://doi-org.proxy.lib.umich.edu/10.1108/SGPE-07-2020-0042

Posselt, J. R. (2018). Rigor and Support in Racialized Learning Environments: The Case of Graduate Education. *New Directions for Higher Education*, *2018*(181), 59–70.

https://doi.org/10.1002/he.20271

Poteat, V. P., Sinclair, K. O., Digiovanni, C. D., Koenig, B. W., & Russell, S. T. (2012). Gay-straight alliances are associated with student health: A multischool comparison of LGBTQ and heterosexual youth. *Journal of Research on Adolescence*, *23*(2), 319–330. https://doi.org/10.1111/j.1532-7795.2012.00832.x

Poynter, K. J., & Tubbs, N. J. (2007). Safe zones: Creating LGBT safe space ally programs. *Journal of LGBT Youth*, *5*(1), 121–132. https://doi.org/10.1300/J524v05n01_10

Pratt, M. W., Hunsberger, B., Pancer, S. M., Alisat, S., Bowers, C., Mackey, K., & Thomas, N. (2000). Facilitating the transition to university: Evaluation of a social support discussion intervention program. *Journal of College Student Development*, *41*, 427–441.

Proulx, J., Croff, R., Oken, B., Aldwin, C. M., Fleming, C., Bergen-Cico, D., … Noorani, M. (2018). Considerations for Research and Development of Culturally Relevant Mindfulness Interventions in American Minority Communities. *Mindfulness*, *9*(2), 361–370. https://doi.org/10.1007/s12671-017-0785-z

Purdie-Vaughns, V., Steele, C. M., Davies, P. G., Ditlmann, R., & Crosby, J. R. (2008). Social Identity Contingencies: How Diversity Cues Signal Threat or Safety for African Americans in Mainstream Institutions. *Journal of Personality and Social Psychology*, *94*(4), 615–630. https://doi.org/10.1037/0022-3514.94.4.615

Racine, N., McArthur, B. A., Cooke, J. E., Eirich, R., Zhu, J., & Madigan, S. (2021). Global Prevalence of Depressive and Anxiety Symptoms in Children and Adolescents during COVID-19: A Meta-analysis. *JAMA Pediatrics*, *175*(11), 1142–1150. https://doi.org/10.1001/jamapediatrics.2021.2482

Raifman, J., Moscoe, E., Austin, B., Hatzenbuehler, M. L., & Galea, S. (2018). Association of state laws permitting denial of services to same-sex couples with mental distress in sexual minority adults: A difference-in-difference-in-differences analysis. *JAMA Psychiatry*, *75*(7), 671–677. https://doi.org/10.1001/jamapsychiatry.2018.0757

Ramchand, R., Ahluwalia, S. C., Xenakis, L., Apaydin, E., Raaen, L., & Grimm, G. (2017). A systematic review of peer-supported interventions for health promotion and disease prevention. *Preventive Medicine*, *101*, 156–170. https://doi.org/10.1016/j.ypmed.2017.06.008

Rankin, S. R. (2005). Campus climates for sexual minorities. *New Directions for Student Services*, *2005*(111), 17–23. https://doi.org/10.1002/ss.170

Rankin, S. R., & Reason, R. D. (2008). Transformational Tapestry Model: A comprehensive approach to transforming campus climate. *Journal of Diversity in Higher Education*, *1*(4), 262–274. https://doi.org/http://dx.doi.org/10.1037/a0014018

Raposa, E. B., Rhodes, J., Stams, G. J. J. M., Card, N., Burton, S., Schwartz, S., … Hussain, S. (2019). The Effects of Youth Mentoring Programs: A Meta-analysis of Outcome Studies. *Journal of Youth and Adolescence*, *48*(3), 423–443. https://doi.org/10.1007/s10964-019-00982-8

Rash, E. M. (2008). Clinicians' perspectives on motivational interviewing-based brief interventions in college health. *Journal of American College Health*, *57*(3), 379–384. https://doi.org/10.3200/JACH.57.3.379-384

Raza, S. S., Williams, Z., Katsiaficas, D., & Saravia, L. A. (2019). Interrupting the cycle of worrying: Financial implications of the california dream act in the lives of undocumented college students. *Review of Higher Education*, *43*(1), 335–370. https://doi.org/10.1353/rhe.2019.0098

Reaves, B. (2015). *Campus law enforcement, 2011–2012: special report*. Retrieved from https://www.bjs.gov/content/pub/pdf/ cle1112.pdf

Reavley, N. J., McCann, T. V., Cvetkovski, S., & Jorm, A. F. (2014). A multifaceted intervention to improve mental health literacy in students of a multicampus university: a cluster randomised trial. *Social Psychiatry and Psychiatric Epidemiology*, *49*(10), 1655–1666. https://doi.org/10.1007/s00127-014-0880-6

Reavley, N., & Jorm, A. F. (2010). Prevention and early intervention to improve mental health in higher education students: A review. *Early Intervention in Psychiatry*, *4*(2), 132–142. https://doi.org/10.1111/j.1751-7893.2010.00167.x

Reed, D. A., Shanafelt, T. D., Satele, D. W., Power, D. V., Eacker, A., Harper, W., … Dyrbye, L. N. (2011). Relationship of pass/fail grading and curriculum structure with well-being among preclinical medical students: A multi-institutional study. *Academic Medicine*, *86*(11), 1367–1373. https://doi.org/10.1097/ACM.0b013e3182305d81

Regehr, C., Glancy, D., & Pitts, A. (2013). Interventions to reduce stress in university students: A review and meta-analysis. *Journal of Affective Disorders*, *148*(1), 1–11. https://doi.org/10.1016/j.jad.2012.11.026

Reisch, T., & Michel, K. (2005). Securing a Suicide Hot Spot: Effects of a Safety Net at the Bern Muenster Terrace. *Suicide and Life-Threatening Behavior*, *35*(4), 460–467. https://doi.org/10.1521/suli.2005.35.4.460

Reisner, S. L., Conron, K. J., Scout, Baker, K., Herman, J. L., Lombardi, E., … Matthews, A. K. (2015). "Counting" Transgender and Gender-Nonconforming Adults in Health Research: Recommendations from the Gender Identity in US Surveillance Group. *TSQ: Transgender Studies Quarterly*, *2*(1), 34–57. https://doi.org/10.1215/23289252-2848877

Reisner, S. L., Hughto, J. M. W., Dunham, E. E., Heflin, K. J., Begenyi, J. B., Coffey-Esquivel, J., & Cahill, S. (2015). Legal Protections in Public Accommodations Settings: A Critical Public Health Issue for Transgender and Gender-Nonconforming People. *Milbank Quarterly*, *93*(3), 484–515.

Renn, K. a. (2010). LGBT and Queer Research in Higher Education: The State and Status of the Field. *Educational Researcher*, *39*(2), 132–141. https://doi.org/10.3102/0013189X10362579

Renn, K. A., & Arnold, K. D. (2003). Reconceptualizing research on college student peer culture. *Journal of Higher Education*, *74*(3), 261–291. https://doi.org/10.1080/00221546.2003.11780847

Repper, J., & Carter, T. (2011). A review of the literature on peer support in mental health services services, *8237*. https://doi.org/10.3109/09638237.2011.583947

Reynolds, J. E., & Gonzales-Backen, M. A. (2017). Ethnic-Racial Socialization and the Mental Health of African Americans: A Critical Review. *Journal of Family Theory and Review*, *9*(2), 182–200. https://doi.org/10.1111/jftr.12192

Rhodes, J. E. (2008). Improving youth mentoring interventions through research-based practice. *American Journal of Community Psychology*, *41*(1–2), 35–42. https://doi.org/10.1007/s10464-007-9153-9

Rhodes, W. A., Singleton, E., McMillan, T. B., & Perrino, C. S. (2005). Does knowledge of college drinking policy influence student binge drinking? *Journal of American College Health*, *54*(1), 45–49. https://doi.org/10.3200/JACH.54.1.45-49

Riba, M., & Menon, M. (2021). *College Psychiatry*. Switzerland: Springer.

Ribera, A. K., Miller, A. L., & Dumford, A. D. (2017). Sense of Peer Belonging and Institutional

Acceptance in the First Year: The Role of High-Impact Practices. *Journal of College Student Development*, *58*(4), 545–563. https://doi.org/10.1353/csd.2017.0042

Richard, L., Gauvin, L., & Raine, K. (2011). Ecological Models Revisited: Their Uses and Evolution in Health Promotion Over Two Decades. *Annual Review of Public Health*, *32*(1), 307–326. https://doi.org/10.1146/annurev-publhealth-031210-101141

Riley, B. J. B., & Mcwilliams, M. (2007). Engaged Learning through Curriculum Infusion. *Peer Review*, *9*(3), 1–3.

Ritchie, A. J. (2017). *Invisible No More: Police Violence Against Black Women and Women of Color*. Beacon Press.

Rith-Najarian, L. R., Boustani, M. M., & Chorpita, B. F. (2019). A systematic review of prevention programs targeting depression, anxiety, and stress in university students. *Journal of Affective Disorders*, *257*(May), 568–584. https://doi.org/10.1016/j.jad.2019.06.035

Robb, C. A., Moody, B., & Abdel-Ghany, M. (2011). College student persistence to degree: The burden of debt. *Journal of College Student Retention: Research, Theory and Practice*, *13*(4), 431–456. https://doi.org/10.2190/CS.13.4.b

Robinson, J., Cox, G., Malone, A., Williamson, M., Baldwin, G., Fletcher, K., & O'Brien, M. (2013). A systematic review of school-based interventions aimed at preventing, treating, and responding to suicide- related behavior in young people. *Crisis*. https://doi.org/10.1027/0227-5910/a000168

Robinson, J. P., & Espelage, D. L. (2011). Inequities in educational and psychological outcomes between LGBTQ and straight students in middle and high school. *Educational Researcher*, *40*(7), 315–330. https://doi.org/10.3102/0013189X11422112

Robotham, D. (2008). Stress among higher education students: Towards a research agenda. *Higher Education*, *56*(6), 735–746. https://doi.org/10.1007/s10734-008-9137-1

Roeser, R. W., Midgley, C., & Urdan, T. C. (1996). Perceptions of the school psychological environment and early adolescents' psychological and behavioral functioning in school: The mediating role of goals and belonging. *Journal of Educational Psychology*, *88*(3), 408–422. https://doi.org/10.1037/0022-0663.88.3.408

Rogers, A. A., Ph, D., Ha, T., Ph, D., & Ockey, S. (2020). Adolescents' Perceived Socio-Emotional Impact of COVID-19 and Implications for Mental Health: Results From a U.S.-Based Mixed-Methods Study. *Journal of Adolescent Health*, *68*, 43–52.

Rohe, D. E., Barrier, P. A., Clark, M. M., Cook, D. A., Vickers, K. S., & Decker, P. A. (2006). The benefits of pass-fail grading on stress, mood, and group cohesion in medical students. *Mayo Clinic Proceedings*, *81*(11), 1443–1448. https://doi.org/10.4065/81.11.1443

Rosenbloom, S. R., & Way, N. (2004). Experiences of discrimination among African American, Asian American, and Latino adolescents in an urban high school. *Youth and Society*, *35*(4), 420–451. https://doi.org/10.1177/0044118X03261479

Rosenthal, E. L., Brownstein, J. N., Rush, C. H., Hirsch, G. R., Willaert, A. M., Scott, J. R., … Fox, D. J. (2010). Community health workers: Part of the solution. *Health Affairs*, *29*(7), 1338–1342. https://doi.org/10.1377/hlthaff.2010.0081

Rosenzweig, S., Reibel, D. K., Greeson, J. M., Brainard, G. C., & Hojat, M. (2003). Mindfulness-based stress reduction lowers psychological distress in medical students. *Teaching and Learning in Medicine*, *15*(2), 88–92. https://doi.org/10.1207/S15328015TLM1502_03

Russell, S. T., & Toomey, R. B. (2013). Risk and Protective Factors for Suicidal Thoughts Among Sexual Minority Youth: Evidence from the Add Health Study. *Journal of Gay &*

Lesbian Mental Health, *17*(February 2015), 132–149.
https://doi.org/10.1080/19359705.2012.753398

Russell, S. T., Toomey, R. B., Ryan, C., & Diaz, R. M. (2014). BEING out at school: The implications for school victimization and young adult adjustment. *American Journal of Orthopsychiatry*, *84*(6), 635–643. https://doi.org/10.1037/ort0000037

Ryan, M. L., Shochet, I. M., & Stallman, H. M. (2010). Universal online interventions might engage psychologically distressed university students who are unlikely to seek formal help. *Advances in Mental Health*, *9*(1), 73–83. https://doi.org/10.5172/jamh.9.1.73

Ryan, T., Baik, C., & Larcombe, W. (2021). How can universities better support the mental wellbeing of higher degree research students? A study of students' suggestions. *Higher Education Research and Development*, *0*(0), 1–15.
https://doi.org/10.1080/07294360.2021.1874886

Sabina, C., & Ho, L. Y. (2014). Campus and College Victim Responses to Sexual Assault and Dating Violence: Disclosure, Service Utilization, and Service Provision. *Trauma, Violence, and Abuse*, *15*(3), 201–226. https://doi.org/10.1177/1524838014521322

Sagar-Ouriaghli, I., Godfrey, E., Bridge, L., Meade, L., & Brown, J. S. L. (2019). Improving Mental Health Service Utilization Among Men: A Systematic Review and Synthesis of Behavior Change Techniques Within Interventions Targeting Help-Seeking. *American Journal of Men's Health*, *13*(3). https://doi.org/10.1177/1557988319857009

Sainato, M. (2020, June 24). US students call on universities to dismantle and defund campus policing. *The Guardian*.

Sallis, J. F., Owen, N., & Fisher, E. B. (2008). Ecological models of health behavior. In K. Glanz, B. K. Rimer, & K. Biswanath (Eds.), *Health Behavior and Health Education: Theory, Research and Practice* (pp. 465–485). San Francisco, CA: Jossey-Bass.

Salovey, P., & D'andrea, V. J. (1984). A survey of campus peer counseling activities. *Journal of the American College Health Association*, *32*(6), 262–265.
https://doi.org/10.1080/07448481.1984.9939581

SAMHSA. (2012). *SAMHSA's Working Definition of Recovery*.

Samson, J. E., & Tanner-Smith, E. E. (2015). Single-session alcohol interventions for heavy drinking college students:A systematic review and meta-analysis. *Journal of Studies on Alcohol and Drugs*, *76*(4), 530–543. https://doi.org/10.15288/jsad.2015.76.530

Sarchiapone, M., Mandelli, L., Iosue, M., Andrisano, C., & Roy, A. (2011). Controlling access to suicide means. *International Journal of Environmental Research and Public Health*, *8*(12), 4550–4562. https://doi.org/10.3390/ijerph8124550

Sausa, L. A. (2005). Translating Research into Practice: Trans Youth Recommendations for Improving School Systems. *Journal of Gay & Lesbian Issues in Education*, *3*(1), 15–28. https://doi.org/10.1300/j367v03n01_04

Sawyer, R. G., Pinciaro, P., & Bedwell, D. (1997). How peer education changed peer sexuality educators' self-esteem, personal development, and sexual behavior. *Journal of the American College Health Association*, *45*(5), 211–217.
https://doi.org/10.1080/07448481.1997.9936887

Schachter, H. M., Girardi, A., Ly, M., Lacroix, D., Lumb, A. B., Van Berkom, J., & Gill, R. (2008). Effects of school-based interventions on mental health stigmatization: A systematic review. *Child and Adolescent Psychiatry and Mental Health*, *2*, 1–14.
https://doi.org/10.1186/1753-2000-2-18

Schilling, E. A., Lawless, M., Buchanan, L., & Aseltine, R. H. (2014). "Signs of suicide" shows

promise as a middle school suicide prevention program. *Suicide and Life-Threatening Behavior*, *44*(6), 653–667. https://doi.org/10.1111/sltb.12097

Schreiner, L. A. (2010). The "thriving quotient": A new vision for student success. *About Campus*, *15*(2), 2–10. https://doi.org/10.1002/abc.20016

Schwartz, A. J. (2011). Rate, relative risk, and method of suicide by students at 4-year colleges and universities in the United States, 2004-2005 through 2008-2009. *Suicide and Life-Threatening Behavior*, *41*(4), 353–371. https://doi.org/10.1111/j.1943-278X.2011.00034.x

Schwartz, S., Kanchewa, S. S., Rhodes, J. E., Gowdy, G., Stark, A. M., Horn, J. P., … Spencer, R. (2018). "I'm Having a Little Struggle With This, Can You Help Me Out?": Examining Impacts and Processes of a Social Capital Intervention for First-Generation College Students. *American Journal of Community Psychology*, *61*(1–2), 166–178. https://doi.org/10.1002/ajcp.12206

Schwartz, V. (2016). Mandatory Leave of Absence for College Students With Suicidal Behaviors: The Real Story. *Psychiatric Times*, *33*(8).

Schwartz, V., & Davar, D. (2018). A Comprehensive Model to Promote Mental Health and Address Risk for Suicide. In M. D. Cimini & E. M. Rivero (Eds.), *Promoting Behavioral Health and Reducing Risk Among College Students* (pp. 145–171). New York, NY: Routledge.

Scott, R. L. (2000). Evaluation of a Mobile Crisis Program: Effectiveness, Efficiency, and Consumer Satisfaction. *Psychiatric Services*, *51*(9), 1153–1156.

Sears, S., & Kraus, S. (2009). I Think Therefore I Om: Cognitive Distortions and Coping Style as Mediators for the Effects of Mindfulness Meditation on Anxiety, Positive and Negative Affect, and Hope. *Journal of Clinical Psychology*, *65*(6), 561–573. https://doi.org/10.1002/jclp

Sedlacek, W. E. (1987). Black students on White campuses: 20 Years of research. *Journal of College Student Development*, *40*(5), 538–549.

Seelman, K. L. (2014a). Recommendations of transgender students, staff, and faculty in the USA for improving college campuses. *Gender and Education*, *26*(6), 618–635. https://doi.org/10.1080/09540253.2014.935300

Seelman, K. L. (2014b). Transgender Individuals' Access to College Housing and Bathrooms: Findings from the National Transgender Discrimination Survey. *Journal of Gay & Lesbian Social Services*, *26*(2), 186–206. https://doi.org/10.1080/10538720.2014.891091

Seelman, K. L. (2016). Transgender Adults' Access to College Bathrooms and Housing and the Relationship to Suicidality. *Journal of Homosexuality*, *63*(10), 1378–1399. https://doi.org/10.1080/00918369.2016.1157998

Seelman, K. L., Woodford, M. R., & Nicolazzo, Z. (2017). Victimization and Microaggressions Targeting LGBTQ College Students: Gender Identity As a Moderator of Psychological Distress. *Journal of Ethnic and Cultural Diversity in Social Work*, *26*(1–2), 112–125. https://doi.org/10.1080/15313204.2016.1263816

Segal, E. (2016). The Crisis Intervention Team (CIT) Model for Law Enforcement: Creative Considerations for Enhancing University Campus Police Response to Mental Health Crisis. *Creative and Knowledge Society*, *4*(1). https://doi.org/10.2478/cks-2014-0001

Self, C. (2013). Parent Involvement in Higher Education: A Review of the Literature. *AHEPPP Journal*, *4*(1), 1–12.

Selingo, J. J. (2015). *The view from the top: What presidents think about financial sustainability, student outcomes, and the future of higher education*. Washington, DC.

Sellers, R. M., Caldwell, C. H., Schmeelk-cone, K. H., Zimmerman, A., Caldwell, C. H., & Schmeelk-cone, K. H. (2003). Racial Identity , Racial Discrimination , Perceived Stress , and Psychological Distress among African American Young Adults Source : Journal of Health and Social Behavior , Sep ., 2003 , Vol . 44 , No . 3 , Special Issue : Race , Ethnicity , and Mental He, *44*(3).

Sellers, R. M., Copeland-Linder, N., Martin, P. P., & Lewis, R. L. (2006). Racial Identity Matters: The Relationship between Racial Discrimination and Psychological Functioning in African American Adolescents. *Journal of Research on Adolescence*, *16*(2), 187–216.

Sells, D., Davidson, L., Jewell, C., Falzer, P., & Rowe, M. (2006). The treatment relationship in peer-based and regular case management for clients with severe mental illness. *Psychiatric Services*, *57*(8), 1179–1184. https://doi.org/10.1176/ps.2006.57.8.1179

Sewell, A. A., Feldman, J. M., Ray, R., Gilbert, K. L., Jefferson, K. A., & Lee, H. (2020). Illness spillovers of lethal police violence: the significance of gendered marginalization. *Ethnic and Racial Studies*, 1–26. https://doi.org/10.1080/01419870.2020.1781913

Shannonhouse, L., Lin, Y. D., Shaw, K., & Wanna, R. (2017). Suicide intervention training for college staff: Program evaluation and intervention skill measurement. *Journal of American College Health*, *65*(7), 450–456.

Shapiro, S. L., Brown, K. W., & Biegel, G. M. (2007). Teaching self-care to caregivers: Effects of mindfulness-based stress reduction on the mental health of therapists in training. *Training and Education in Professional Psychology*, *1*(2), 105–115. https://doi.org/10.1037/1931-3918.1.2.105

Shapiro, S. L., Oman, D., Thoresen, C. E., Plante, T. G., & Flinders, T. (2008). Cultivating Mindfulness: Effects on Well-Being. *Journal of Clinical Psychology*, *64*(7), 840–862. https://doi.org/10.1002/jclp

Shapiro, S. L., Schwartz, G. E., & Bonner, G. (1998). Effects of mindfulness-based stress reduction on medical and premedical students. *Journal of Behavioral Medicine*, *21*(6), 581–599. https://doi.org/10.1023/A:1018700829825

Shek, D. T. L., Sun, R. C. F., Chui, Y. H., Lit, S. W., Yuen, W. W., Chung, Y. Y. H., & Ngai, S. W. (2012). Development and evaluation of a positive youth development course for university students in Hong Kong. *The Scientific World Journal*, 1–8. https://doi.org/10.1100/2012/263731

Shek, D. T., Yu, L., Ma, C. M., Sun, R. C., & Liu, T. T. (2013). Development of a credit-bearing service leadership subject for university students in Hong Kong. *International Journal of Adolescent Medicine and Health*, *25*(4), 353–361.

Shepardson, R. L., & Funderburk, J. S. (2014). Implementation of universal behavioral health screening in a university health setting. *Journal of Clinical Psychology in Medical Settings*, *21*(3), 253–266. https://doi.org/10.1007/s10880-014-9401-8

Shiralkar, M. T., Harris, T. B., Eddins-Folensbee, F. F., & Coverdale, J. H. (2013). A systematic review of stress-management programs for medical students. *Academic Psychiatry*, *37*(3), 158–164. https://doi.org/10.1176/appi.ap.12010003

Shochet, I., Dadds, M., Ham, D., & Montague, R. (2006). School Connectedness Is an Underemphasized Parameter in Adolescent Mental Health : Results of a Community Prediction Study School Connectedness Is an Underemphasized Parameter in Adolescent Mental Health : Results of a Community Prediction Study. *Journal of Clinical Child & Adolescent Mental*, *35*(2), 170–179. https://doi.org/10.1207/s15374424jccp3502

Shook, J. L., & Keup, J. R. (2012). The benefits of peer leader programs: An overview from the

literature. *New Directions for Higher Education*, *2012*(157), 5–16.
    https://doi.org/10.1002/he.20002

Simon Fraser University. (2017). Creating Conditions for Well-being in Learning Environments.
    Retrieved from http://www.sfu.ca/content/dam/sfu/healthycampuscommunity/WLE-
    Tools/WLE-Printouts_v5.pdf

Siu, A. L., Bibbins-Domingo, K., Grossman, D. C., Baumann, L. C., Davidson, K. W., Ebell, M.,
    … Pignone, M. P. (2016). Screening for depression in adults: US preventive services task
    force recommendation statement. *JAMA - Journal of the American Medical Association*,
    315(4), 380–387. https://doi.org/10.1001/jama.2015.18392

Skiba, R. J., Arredondo, M. I., Gray, C., & Raush, M. K. (2018). Discipline disparities: New and
    emerging research in the United States. In J. Deakin, E. Taylor, & A. Kupchik (Eds.),
    Handbook ofschool security, surveillance and punishment (pp. 235–252). Palgrave.

Slavin, S. J., Schindler, D. L., & Chibnall, J. T. (2014). Medical student mental health 3.0:
    Improving student wellness through curricular changes. *Academic Medicine*, *89*(4), 573–
    577. https://doi.org/10.1097/ACM.0000000000000166

Sloan, J. J. (1992). Campus Crime and Campus Communities: An Analysis of Crimes Known to
    Campus Police and Security. *Journal of Security Administration*, *15*(2), 31–47. Retrieved
    from https://www.ojp.gov/ncjrs/virtual-library/abstracts/campus-crime-and-campus-
    communities-analysis-crimes-known-campus

Smith, D. G. (2015). *Diversity's Promise for Higher Education: Making it Work* (Second).
    Baltimore, MD: Joh Hopkins University Press.

Smith Lee, J. R., & Robinson, M. A. (2019). "That's My Number One Fear in Life. It's the
    Police": Examining Young Black Men's Exposures to Trauma and Loss Resulting From
    Police Violence and Police Killings. *Journal of Black Psychology*, *45*(3), 143–184.
    https://doi.org/10.1177/0095798419865152

Smith, W. A., Allen, W. R., & Danley, L. L. (2007). "Assume the Position...You Fit the
    Description" Psychosocial Experiences and Racial Battle Fatigue Among African American
    Male College Students. *American Behavioral Scientist*, *51*(4), 551–578.

Smith, W. A., Mustaffa, J. B., Jones, C. M., Curry, T. J., & Allen, W. R. (2016). 'You make me
    wanna holler and throw up both my hands!': Campus culture, Black misandric
    microaggressions, and racial battle fatigue. *International Journal of Qualitative Studies in
    Education*, *29*(9), 1189–1209. https://doi.org/10.1080/09518398.2016.1214296

Sokol, R., & Fisher, E. (2016). Peer support for the hardly reached: A systematic review.
    American Journal of Public Health, *106*(7), e1–e8.
    https://doi.org/10.2105/AJPH.2016.303180

Solis, C., Portillos, E. L., & Brunson, R. K. (2009). Latino Youths' experiences with and
    perceptions of involuntary police encounters. *Annals of the American Academy of Political
    and Social Science*, *623*(1), 39–51. https://doi.org/10.1177/0002716208330487

Solorzano, D., Ceja, M., & Yosso, T. (2000). Critical Race Theory, Racial Microaggressions,
    and Campus Racial Climate: The Experiences of African American College Students. *The
    Journal of Negro Education*, *69*(1/2), 60–73. Retrieved from
    http://www.jstor.org/stable/2696265%5Cnhttp://about.jstor.org/terms

Sontag-Padilla, L., Dunbar, M. S., Ye, F., Kase, C., Fein, R., Abelson, S., … Stein, B. D. (2018).
    Strengthening College Students' Mental Health Knowledge, Awareness, and Helping
    Behaviors: The Impact of Active Minds, a Peer Mental Health Organization. *Journal of the
    American Academy of Child and Adolescent Psychiatry*, *57*(7), 500–507.

https://doi.org/10.1016/j.jaac.2018.03.019

Sontag-Padilla, L., Seelam, R., Kase, C., Woodbridge, M., & Stein, B. (2017). *Student Access to Mental Health Information on California College Campuses*. California. https://doi.org/10.7249/rr1825

Sontag-Padilla, L., Woodbridge, M. W., Mendelsohn, J., D'Amico, E. J., Osilla, K. C., Jaycox, L. H., … Stein, B. D. (2016). Factors Affecting Mental Health Service Utilization Among California Public College and University Students. *Psychiatric Services*, *67*(8), 890–897. https://doi.org/10.1176/appi.ps.201500307

Specia, A., & Osman, A. (2018). Education as a Practice of Freedom: Reflections on bell hooks. *Journal of Education and Practice*, *6*(17), 195–199. https://doi.org/10.1215/9780822371793-102

Spencer, M. B., Dupree, D., & Hartmann, T. (1997). A Phenomenological Variant of Ecological Systems Theory (PVEST): A self-organization perspective in context. *Development and Psychopathology*, *9*(4), 817–833. https://doi.org/10.1017/s0954579497001454

Ssentongo, P., Fronterre, C., Ssentongo, A. E., Advani, S., Heilbrunn, E. S., Hazelton, J. P., … Chinchilli, V. M. (2021). Gun violence incidence during the COVID-19 pandemic is higher than before the pandemic in the United States. *Scientific Reports*, *11*(1), 1–8. https://doi.org/10.1038/s41598-021-98813-z

Startz, D. (2020). *Coronavirus poses serious financial risks to U.S. universities*. *Brown Center Chalkboard, Brookings Institute*. Washington, DC.

Stebleton, M. J., Soria, K. M., & Huesman, R. L. (2014). First-generation students' sense of belonging, mental health, and use of counseling services at public research universities. *Journal of College Counseling*, *17*(1), 6–17. https://doi.org/10.1002/j.2161-1882.2014.00044.x

Steele, C. M. (2010). *Whistling Vivaldi: How Stereotypes Affect Us and What We Can Do (Issues of Our Time)*. New York, NY: Norton & Company Inc.

Stein, B. D., Sontag-Padilla, L. M., Chan Osilla, K., Woodbridge, M. W., Kase, C. A., Jaycox, L. H., … Golan, S. (2012). *Interventions to Improve Student Mental Health*. Santa Monica, CA.

Steinberg, L. (2014). *Age of opportunity: Lessons from the new science of adolescence*. Houghton Mifflin Harcourt.

Stephens, N. M., Hamedani, M. Y. G., & Destin, M. (2014). Closing the Social-Class Achievement Gap: A Difference-Education Intervention Improves First-Generation Students' Academic Performance and All Students' College Transition. *Psychological Science*, *25*(4), 943–953. https://doi.org/10.1177/0956797613518349

Steve Fund, & Jed Foundation. (n.d.). *Equity in Mental Health Framework*.

Stice, E., Butryn, M. L., Rohde, P., Shaw, H., & Marti, C. N. (2013). An Effectiveness Trial of a New Enhanced Dissonance Eating Disorder Prevention Program among Female College Students. *Behavioral Research Therapy*, *51*(12), 862–871. https://doi.org/10.1016/j.brat.2013.10.003.An

Stice, E., Marti, C. N., & Cheng, Z. H. (2014). Effectiveness of a Dissonance-Based Eating Disorder Prevention Program for Ethnic Groups in Two Randomized Controlled Trials. *Behavioral Research Therapy*, *55*, 54–64. https://doi.org/10.1016/j.brat.2014.02.002.Effectiveness

Stice, E., Marti, C. N., Spoor, S., Presnell, K., & Shaw, H. (2008). Dissonance and Healthy Weight Eating Disorder Prevention Programs: Long-Term Effects from a Randomized

Efficacy Trial. *Journal of Consulting and Clinical Psychology*, *76*(2), 329–340. https://doi.org/10.1037/0022-006X.76.2.329.Dissonance

Stice, E., Rohde, P., Shaw, H., & Gau, J. (2011). An effectiveness trial of a selected dissonance-based eating disorder prevention program for female high school students: Long-term effects. *Journal of Consulting and Clinical Psychology*, *79*(4), 500–508. https://doi.org/10.1037/a0024351

Stice, E., Shaw, H., Burton, E., & Wade, E. (2006). Dissonance and healthy weight eating disorder prevention programs: A randomized efficacy trial. *Journal of Consulting and Clinical Psychology*, *74*(2), 263–275. https://doi.org/10.1037/0022-006X.74.2.263

Stice, E., Shaw, H., & Marti, C. N. (2007). A meta-analytic review of eating disorder prevention programs: Encouraging findings. *Annual Review of Clinical Psychology*, *3*, 207–231. https://doi.org/10.1146/annurev.clinpsy.3.022806.091447

Stokes, D. R., Gonsales, M., Rowe, D., Romero, D., Adams, M., Lyos, S., & Rayfield, G. (1988). Multicultural Peer Counseling: A Developmental Perspective and Rationale. *Journal of Counseling & Development*, *67*(1), 55–56. https://doi.org/10.1002/j.1556-6676.1988.tb02012.x

Stolzenberg, E. B., & Hughes, B. (2017). The Experiences of Incoming Transgender College Students: New Data on Gender Identity. *Liberal Education*, *103*(2).

Stratford, M. (2012, March 25). Preventing suicide on campus may mean fences and nets as well as counseling. *Chronicle of Higher Educ.Ation*.

Stravynski, A., Belisle, M., Marcouiller, M., Lavallee, Y. J., & Elie, R. (1994). The treatment of avoidant personality disorder by social skills training in the clinic or in real-life settings. *Canadian Journal of Psychiatry*, *39*(8), 377–383. https://doi.org/10.1177/070674379403900805

Strayhorn, T. L. (2010). When race and gender collide: Social and cultural capital's influence on the academic achievement of African American and Latino males. *Review of Higher Education*, *33*(3), 307–332. https://doi.org/10.1353/rhe.0.0147

Strayhorn, T. L. (2012). *College Students' Sense of Belonging: A Key to Educational Success for All Student*. New York and London: Routledge.

Streng, T. K., & Kamimura, A. (2015). Sexual Assault Prevention and Reporting on College Campuses in the US: A Review of Policies and Recommendations. *Journal of Education and Practice*, *6*(3), 65–72.

Stuart, H. (2016). Reducing the stigma of mental illness. *Global Mental Health*, *3*(e17), 1–14. https://doi.org/doi:10.1017/gmh.2016.11

Suárez-Orozco, C., Casanova, S., Martin, M., Katsiaficas, D., Cuellar, V., Smith, N. A., & Dias, S. I. (2015). Toxic rain in class: Classroom interpersonal microaggressions. *Educational Researcher*, *44*(3), 151–160. https://doi.org/10.3102/0013189X15580314

Suárez-Orozco, C., Katsiaficas, D., Birchall, O., Alcantar, C. M., Hernandez, E., Garcia, Y., … Teranishi, R. T. (2015). Undocumented undergraduates on college campuses: Understanding their challenges and assets and what it takes to make an undocufriendly campus. *Harvard Educational Review*, *85*(3), 427–463. https://doi.org/10.17763/0017-8055.85.3.427

Substance Abuse and Mental Health Services Administration. (2019). *A Guide to SAMHSA's Strategic Prevention Framework*. Rockville, MD. Retrieved from https://www.samhsa.gov/sites/default/files/20190620-samhsa-strategic-prevention-framework-guide.pdf

Sue, D. W., Alsaidi, S., Awad, M. N., Glaeser, E., Calle, C. Z., & Mendez, N. (2019). Disarming racial microaggressions: Microintervention strategies for targets, white allies, and bystanders. *American Psychologist*, *74*(1), 128–142. https://doi.org/10.1037/amp0000296

Sue, D. W., Lin, A. I., Torino, G. C., Capodilupo, C. M., & Rivera, D. P. (2009). Racial Microaggressions and Difficult Dialogues on Race in the Classroom. *Cultural Diversity and Ethnic Minority Psychology*, *15*(2), 183–190. https://doi.org/10.1037/a0014191

Sue, D. W., Rivera, D. P., Capodilupo, C. M., Lin, A. I., & Torino, G. C. (2010). Racial Dialogues and White Trainee Fears: Implications for Education and Training. *Cultural Diversity and Ethnic Minority Psychology*, *16*(2), 206–214. https://doi.org/10.1037/a0016112

Sullivan, W. C., & Chang, C. (2011). Mental Health and the Built Environment. In A. L. Dannenberg, H. Frumkin, & R. J. Jackson (Eds.), *Making Healthy Places: Designing and Building for Health, Well-being, and Sustainability* (pp. 106–115). Washington DC: Island Press. https://doi.org/10.5822/978-1-61091-036-1

Sutter, M., & Perrin, P. B. (2016). Discrimination, mental health, and suicidal ideation among LGBTQ people of color. *Journal of Counseling Psychology*, *63*(1), 98–105. https://doi.org/10.1037/cou0000126

Sutton, A., Clowes, M., Preston, L., & Booth, A. (2019). Meeting the review family: exploring review types and associated information retrieval requirements. *Health Information and Libraries Journal*, *36*(3), 202–222. https://doi.org/10.1111/hir.12276

Svedberg, P., Nygren, J. M., Staland-Nyman, C., & Nyholm, M. (2016). The Validity of Socioeconomic Status Measures Among Adolescents Based on Self-Reported Information About Parents Occupations, FAS and Perceived SES; Implication for Health Related Quality of Life Studies. *BMC Medical Research Methodology*, *16*(1). https://doi.org/10.1186/s12874-016-0148-9

Swarbrick, M., Murphy, A. A., Zechner, M., Spagnolo, A. B., & Gill, K. J. (2011). Wellness coaching: A new role for peers. *Psychiatric Rehabilitation Journal*, *34*(4), 328–331. https://doi.org/10.2975/34.4.2011.328.331

Sweet, E., Nandi, A., Adam, E. K., & McDade, T. W. (2013). The high price of debt: Household financial debt and its impact on mental and physical health. *Social Science and Medicine*, *91*, 94–100. https://doi.org/10.1016/j.socscimed.2013.05.009

Syzdek, M. R., Green, J. D., Lindgren, B. R., & Addis, M. E. (2016). Pilot trial of gender-based motivational interviewing for increasing mental health service use in college men. *Psychotherapy*, *53*(1), 124–129. https://doi.org/10.1037/pst0000043

Szalacha, L. A. (2003). Safer sexual diversity climates: Lessons learned from an evaluation of Massachusetts safe schools program for gay and lesbian students. *American Journal of Education*, *110*(1), 58–88. https://doi.org/10.1086/377673

Szumilas, M., & Kutcher, S. (2011). Post-suicide Intervention Programs: A Systematic Review Magdalena. *Canadian Journal of Public Health*, *102*(1), 18–29.

Tan, K. K. H., Treharne, G. J., Ellis, S. J., Schmidt, J. M., & Veale, J. F. (2020). Gender Minority Stress: A Critical Review. *Journal of Homosexuality*, *67*(10), 1471–1489. https://doi.org/10.1080/00918369.2019.1591789

Tan, S. (2019). Providing Better Support for Columbia College & Engineering Students: Guaranteed Housing and Taking a Leave of Absence. *Rooselvelt Review*, *11*, 26–27.

Tang, R., Broderick, P., Bono, T., Dvoráková, K., & Braver, T. (2020). A College First-Year Mindfulness Seminar to Enhance Psychological Well-Being and Cognitive Function.

Journal of Student Affairs Research and Practice, *00*(00), 1–15.
https://doi.org/10.1080/19496591.2020.1740719

Taub, D. (2008). Exploring the impact of parental involvement on student development. In K.C. Carney-Hall (Ed.), *Diversity and higher education: Theory and impact on educational outcomes, New Directions for Student Services, No. 122* (pp. 15–28). San Francisco, CA: Jossey-Bass.

The Lancet Global Health. (2020). Mental health matters. *The Lancet Global Health*, *8*(11), e1352. https://doi.org/10.1016/S2214-109X(20)30432-0

The World Health Organization. (2004). *The global burden of disease: 2004 update, Table A2: Burden of disease in DALYs by cause, sex and income group in WHO regions, estimates for 2004.* Geneva, Switzerland.

Thomas, C. R., & Holzer, C. E. (2006). The continuing shortage of child and adolescent psychiatrists. *Journal of the American Academy of Child and Adolescent Psychiatry*, *45*(9), 1023–1031. https://doi.org/10.1097/01.chi.0000225353.16831.5d

Thomas, K. C., Ellis, A. R., Konrad, T. R., Holzer, C. E., & Morrissey, J. P. (2009). County-level estimates of mental health professional shortage in the United States. *Psychiatric Services*, *60*(10), 1323–1328. https://doi.org/10.1176/ps.2009.60.10.1323

Thornicroft, G. (2006). *Shunned: Discrimination against people with mental illness.* Oxford, UK: Oxford University Press.

Thornicroft, Graham, Mehta, N., Clement, S., Evans-Lacko, S., Doherty, M., Rose, D., … Henderson, C. (2016). Evidence for effective interventions to reduce mental-health-related stigma and discrimination. *The Lancet*, *387*(10023), 1123–1132. https://doi.org/10.1016/S0140-6736(15)00298-6

Tinto, V. (1993). Building Community. *Liberal Education*, *79*(4), 16–21.

Titus, M. A. (2004). An examination of the influence of institutional context on student persistence at 4-year colleges and universities: A multilevel approach. *Research in Higher Education*, *45*(7), 673–699. https://doi.org/10.1023/B:RIHE.0000044227.17161.fa

Tompkins, T. L., & Witt, J. (2009). The Short-Term Effectiveness of a Suicide Prevention Gatekeeper Training Program in a College Setting with Residence Life Advisers. *Journal of Primary Prevention*, *30*, 131–149. https://doi.org/10.1007/s10935-009-0171-2

Toomey, R. B., McGuire, J. K., & Russell, S. T. (2012). Heteronormativity, school climates, and perceived safety for gender nonconforming peers. *Journal of Adolescence*, *35*(1), 187–196. https://doi.org/10.1016/j.adolescence.2011.03.001

Torres, J. B., & Solberg, V. S. (2001). Role of Self-Efficacy, Stress, Social Integration, and Family Support in Latino College Student Persistence and Health. *Journal of Vocational Behavior*, *59*, 53–63. https://doi.org/10.1006/jvbe.2000.1785

Torres, L., Driscoll, M. W., & Burrow, A. L. (2010). Racial Microaggressions and Psychological Functioning Among Highly Achieving African-Americans : A Mixed-Methods Approach. *Journal of Social and Clinical Psychology*, *29*(10), 1074–1099.

Torres, V., Jones, S. R., & Renn, K. A. (2009). Identity development theories in student affairs: Origins, current status, and new approaches. *Journal of College Student Development*, *50*(6), 577–596. https://doi.org/10.1353/csd.0.0102

Tovar, E., Simon, M. A., & Lee, H. B. (2009). Development and Validation of the College Mattering Inventory With Diverse Urban College Students. *Measurement and Evaluation in Counseling and Development*, *42*(3), 154–178.

Trickett, E. J. (2009). Multilevel community-based culturally situated interventions and

community impact: An ecological perspective. *American Journal of Community Psychology*, *43*(3–4), 257–266. https://doi.org/10.1007/s10464-009-9227-y

Tsouros, A. D., Dowding, G., Thompson, J., & Dooris, M. (1998). *Health Promoting Universities: Concept, Experience, and Framework for Action*. Copenhagen, Denmark.

Tucker, P., Jeon-Slaughter, H., Sener, U., Arvidson, M., & Khalafian, A. (2015). Do Medical Student Stress, Health, or Quality of Life Foretell Step 1 Scores? A Comparison of Students in Traditional and Revised Preclinical Curricula. *Teaching and Learning in Medicine*, *27*(1), 63–70. https://doi.org/10.1080/10401334.2014.979178

Tuma, T. T., Adams, J. D., Hultquist, B. C., & Dolan, E. L. (2021). The dark side of development: A systems characterization of the negative mentoring experiences of doctoral students. *CBE Life Sciences Education*, *20*(2). https://doi.org/10.1187/cbe.20-10-0231

Turban, J. L., Beckwith, N., Reisner, S. L., & Keuroghlian, A. S. (2020). Association between Recalled Exposure to Gender Identity Conversion Efforts and Psychological Distress and Suicide Attempts among Transgender Adults. *JAMA Psychiatry*, *77*(1), 68–76. https://doi.org/10.1001/jamapsychiatry.2019.2285

Turk, J., Soler, M. C., & Vigil, D. (2020). *College and University Presidents Respond to COVID-19: April 2020 Survey*. Washington, DC. Retrieved from https://www.acenet.edu/Documents/%0APresidents-Respond-COVID19-April2020.pdf.

Turk, J., Soler, M., & Chessman, H. (2020). *College and University Presidents Respond to COVID-19: July 2020 Survey*. Washington, DC.

Turney, K. (2020). Depressive Symptoms among Adolescents Exposed to Personal and Vicarious Police Contact. *Society and Mental Health*. https://doi.org/10.1177/2156869320923095

Turney, K. (2021). Depressive Symptoms among Adolescents Exposed to Personal and Vicarious Police Contact. *Society and Mental Health*, *11*(2), 113–133. https://doi.org/10.1177/2156869320923095

Twenge, J. M., Gentile, B., DeWall, C. N., Ma, D., Lacefield, K., & Schurtz, D. R. (2010). Birth cohort increases in psychopathology among young Americans, 1938-2007: A cross-temporal meta-analysis of the MMPI. *Clinical Psychology Review*, *30*(2), 145–154. https://doi.org/10.1016/j.cpr.2009.10.005

U.S. Department of Education. (2021a). *Report on Indicators of School Crime and Safety: 2020 (NCES 2021-092), Criminal Incidents at Postsecondary Institutions*. Retrieved from https://nces.ed.gov/fastfacts/display.asp?id=804

U.S. Department of Education. (2021b, May 11). U.S. Department of Education Makes Available $36 Billion in American Rescue Plan Funds to Support Students and Institutions. *Ed.Gov*. Retrieved from https://www.ed.gov/news/press-releases/us-department-education-makes-available-36-billion-american-rescue-plan-funds-support-students-and-institutions

Umana-Taylor, A. J., Tyes, B. M., Toomey, R. B., Williams, D. R., & Mitchell, K. J. (2015). Latino Adolescents' Perceived Discrimination in Online and Offline Settings: An Examination of Cultural Risk and Protective Factors. *Developmental Psychology*, *51*(1), 87–100. https://doi.org/10.1037/a0038432

United States Department of Justice, Office of Justice Programs Statistics, & Bureau of Justice. (2015). Survey of Campus Law Enforcement Agencies, 2011-2012. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2015-08-13. Retrieved from https://doi.org/10.3886/ICPSR36217.v1

University of Texas. (2020). *Well-Being in Learning Environments Guidebook*.

University of Washington. (2021). *Well-Being for Life & Learning*. Seattle. Retrieved from https://s3-us-west-2.amazonaws.com/uw-s3-cdn/wp-content/uploads/sites/5/2021/01/20101850/WBLL-Guidebook-FINAL.pdf

Vaccaro, A., & Newman, B. M. (2017). A sense of belonging through the eyes of first-year LGBPQ students. *Journal of Student Affairs Research and Practice*, *54*(1), 137–149. https://doi.org/10.1080/19496591.2016.1211533

Valencia, R. R. (1997). *The Stanford series on education and public policy. The evolution of deficit thinking: Educational thought and practice.* Bristol, PA,: The Falmer Press/Taylor & Francis.

Valentine, S. E., & Shipherd, J. C. (2018). A systematic review of social stress and mental health among transgender and gender non-conforming people in the United States. *Clinical Psychology ReviewClini*, *66*, 24–38. https://doi.org/10.1016/j.cpr.2018.03.003.A

Velez, G., & Spencer, M. B. (2018). Phenomenology and intersectionality: Using pvest as a frame for adolescent identity formation amid intersecting ecological systems of inequality. *New Directions for Child and Adolescent Development*, *2018*(161). https://doi.org/10.1002/cad.20247

Venkataramani, A. S., Cook, E., O'brien, R. L., Kawachi, I., Jena, A. B., & Tsai, A. C. (2019). College affirmative action bans and smoking and alcohol use among underrepresented minority adolescents in the united states: A difference-in-differences study. *PLoS Medicine*, *16*(6), 1–16. https://doi.org/10.1371/journal.pmed.1002821

Waldo, M. (1982). Relationship Skills Workshops in University Residence Halls: A Preventive Intervention. In *Annual Convention of the American Psychological Association*. Washington, D.C.

Walker, R., & Frazier, A. (1993). The effect of a stress management educational program on the knowledge, attitude, behavior, and stress level of college students. *Wellness Perspectives*, *10*(1), 52–60.

Walpole, M. (2003). Socioeconomic Status and College: How SES Affects College Experiences and Outcomes. *The Review of Higher Education*, *27*(1), 45–73. https://doi.org/10.1353/rhe.2003.0044

Walrath, C., Garraza, L. G., Reid, H., Goldston, D. B., & McKeon, R. (2015). Impact of the Garrett Lee Smith youth suicide prevention program on suicide mortality. *American Journal of Public Health*, *105*(5), 986–993. https://doi.org/10.2105/AJPH.2014.302496

Walsemann, K. M., Gee, G. C., & Gentile, D. (2015). Sick of our loans: Student borrowing and the mental health of young adults in the United States. *Social Science and Medicine*, *124*, 85–93. https://doi.org/10.1016/j.socscimed.2014.11.027

Walton, G. M., & Cohen, G. L. (2011). A Brief Social-Belonging Intervention Improves Academic and Health Outocmes of Minority Students. *Science*, *331*(6023), 1447–1451. https://doi.org/10.1126/science.1198364

Walton, G. M., Logel, C., Peach, J. M., Spencer, S. J., & Zanna, M. P. (2015). Two brief interventions to mitigate a "chilly climate" transform women's experience, relationships, and achievement in engineering. *Journal of Educational Psychology*, *107*(2), 468–485. https://doi.org/10.1037/a0037461

Wang, P. S., Demler, O., & Kessler, R. C. (2002). Adequacy of treatment for serious mental illness in the United States. *American Journal of Public Health*, *92*(1), 92–98. https://doi.org/10.2105/AJPH.92.1.92

Wang, T., Solomon, D., Durso, L. E., McBride, S., & Cahill, S. (2016). *State Anti-Transgender*

Bathroom Bills Threaten Transgender People's Health and Participation in Public Life. Boston, MA. Retrieved from http://fenwayhealth.org/wp-content/uploads/2015/12/COM-2485-Transgender-Bathroom-Bill-Brief_v8-pages.pdf

Wartman, K. L., & Savage, M. B. (2008). *Parental involvement in higher education: Understanding the relationship among students, parents, and the institution*. San Francisco, CA: Jossey-Bass.

Washburn, C. A., & Mandrusiak, M. (2010). Campus Suicide Prevention and Intervention: Putting Best Practice Policy into Action. *Canadian Journal of Higher Education*, *40*(1), 101–119. https://doi.org/10.47678/cjhe.v40i1.1571

Wasserman, D., Hoven, C. W., Wasserman, C., Wall, M., Eisenberg, R., Hadlaczky, G., … Carli, V. (2015). School-based suicide prevention programmes: The SEYLE cluster-randomised, controlled trial. *The Lancet*, *385*(9977), 1536–1544. https://doi.org/10.1016/S0140-6736(14)61213-7

Wasson, L. T., Cusmano, A., Meli, L., Louh, I., Falzon, L., Hampsey, M., … Davidson, K. W. (2016). Association between learning environment interventions and medical student well-being a systematic review. *JAMA - Journal of the American Medical Association*, *316*(21), 2237–2252. https://doi.org/10.1001/jama.2016.17573

Waters, R. (2021). Enlisting mental health workers, not cops, in mobile crisis response. *Health Affairs*, *40*(6), 864–869. https://doi.org/10.1377/hlthaff.2021.00678

Watkins, D. C., Goodwill, J. R., Johnson, N. C., Casanova, A., Wei, T., Allen, J. O., … Abelson, J. M. (2020). An Online Behavioral Health Intervention Promoting Mental Health, Manhood, and Social Support for Young Black Men: The YBMen Project. *American Journal of Men's Health*, *14*(4). https://doi.org/10.1177/1557988320937215

Watkins, D. C., & Jefferson, S. O. (2013). Recommendations for the use of online social support for African American men. *Psychological Services*, *10*(3), 323–332. https://doi.org/10.1037/a0027904

Watson-Singleton, N. N., Black, A. R., & Spivey, B. N. (2019). Recommendations for a culturally-responsive mindfulness-based intervention for African Americans. *Complementary Therapies in Clinical Practice*, *34*(November 2018), 132–138. https://doi.org/10.1016/j.ctcp.2018.11.013

Watson-Singleton, N. N., Pennefather, J., & Trusty, T. (2021). Can a culturally-responsive Mobile health (mHealth) application reduce African Americans' stress?: A pilot feasibility study. *Current Psychology*. https://doi.org/10.1007/s12144-021-01534-9

Watson, A. C., & Fulambarker, A. J. (2012). The crisis intervention team model of police response to mental health crises: a primer for mental health practitioners. *Best Practice In Mental Health*, *8*(2), 71–81.

Watson, A. C., Ottati, V. C., Morabito, M., Draine, J., Kerr, A. N., & Angell, B. (2010). Outcomes of police contacts with persons with mental illness: the impact of CIT. *Administration & Policy In Mental Health & Mental Health Services Research*, *37*(4), 302–317.

Wawrzynski, M. R., & Lemon, J. D. (2019). Understanding Student Learning Outcomes of Peer Educators. *New Directions for Higher Education*, *2019*(188), 61–69. https://doi.org/10.1002/he.20346

Wawrzynski, M. R., & Lemon, J. D. (2021). Trends in Health and Wellness Peer Educator Training: A Five-Year Analysis. *Journal of Student Affairs Research and Practice*, *58*(2), 135–147. https://doi.org/10.1080/19496591.2020.1853554

Wawrzynski, M. R., Loconte, C. L., & Straker, E. J. (2011). Learning Outcomes for Peer Educators: The National Survey on Peer Education. In *New Directions for Student Services* (pp. 17–27). Wiley Periodicals. https://doi.org/10.1002/ss

Webel, A. R., Okonsky, J., Trompeta, J., & Holzerner, W. L. (2010). A systematic review of the effectiveness of peer-based interventions on health-related behaviors in adults. *American Journal of Public Health*, *100*(2), 247–253. https://doi.org/10.2105/AJPH.2008.149419

Weinhardt, L. S., Stevens, P., Xie, H., Wesp, L. M., John, S. A., Apchemengich, I., … Lambrou, N. H. (2017). Transgender and gender nonconforming youths' public facilities use and psychological well-being: A mixed-method study. *Transgender Health*, *2*(1), 141–150. https://doi.org/10.1089/trgh.2017.0020

Weissman, S. (2020a, July 20). Over 100 Campus Police Departments Got Military Equipment Through This Federal Program. *Diverse Issues in Higher Education*. Retrieved from https://www.diverseeducation.com/home/article/15107343/over-100-campus-police-departments-got-military-equipment-through-this-federal-program

Weissman, S. (2020b, October 25). Higher Ed Institutions Reexamine Role of Police in Student Mental Health Care. *Diverse Issues in Higher Education*. Retrieved from https://www.diverseeducation.com/home/article/15108008/higher-ed-institutions-reexamine-role-of-police-in-student-mental-health-care

Weisz, J. R., Sandler, I. N., Durlak, J. A., & Anton, B. S. (2005). Promoting and protecting youth mental health through evidence-based prevention and treatment. *American Psychologist*, *60*(6), 628–648. https://doi.org/10.1037/0003-066X.60.6.628

Weitzer, R., & Tuch, S. A. (2004). Race and perceptions of police misconduct. *Social Problems*, *51*(3), 305–325. https://doi.org/10.1525/sp.2004.51.3.305

Wells, J., Barlow, J., & Stewart-Brown, S. (2003). A systematic review of universal approaches to mental health promotion in schools. *Health Education*, *103*(4), 197–220. https://doi.org/10.1108/09654280310485546

Wesley, A. (2019). Strategies for Addressing Mental Health Support on Campus. *NASPA Policy and Practice Series*, *4*(4), 1–9.

Westerhof, G. J., & Keyes, C. L. M. (2010). Mental illness and mental health: The two continua model across the lifespan. *Journal of Adult Development*, *17*(2), 110–119. https://doi.org/10.1007/s10804-009-9082-y

Wharff, E. A., Ginnis, K. M., & Ross, A. M. (2012). Family-based crisis intervention with suicidal adolescents in the emergency room: A pilot study. *Social Work*, *57*(2), 133–143. https://doi.org/10.1093/sw/sws017

Wheatle, K. I. E., & Commodore, F. (2019). Reaching back to move forward: The historic and contemporary role of student activism in the development and implementation of higher education policy. *Review of Higher Education*, *42*, 5–35. https://doi.org/10.1353/rhe.2019.0043

White-Davis, T., Edgoose, J., Brown Speights, J. S., Fraser, K., Ring, J. M., Guh, J., & Saba, G. W. (2018). Addressing racism in medical education: An interactive training module. *Family Medicine*, *50*(5), 364–368. https://doi.org/10.22454/FamMed.2018.875510

White Hughto, J. M., Reisner, S. L., & Pachankis, J. E. (2015). Transgender stigma and health: A critical review of stigma determinants, mechanisms, and interventions. *Social Science and Medicine*, *147*, 222–231. https://doi.org/10.1016/j.socscimed.2015.11.010

White, S., Park, Y. S., Israel, T., & Cordero, E. D. (2009). Longitudinal Evaluation of Peer Health Health Behaviors. *Journal of American College Health*, *57*(5), 497–505.

Whitford, E. (2018, August 3). Police called on black student eating lunch. *Inside Higher Ed*. Retrieved from https://www.insidehighered.com/quicktakes/2018/08/03/police-called-black-student-eating- lunch

Whitt, E. J., Edison, M., Pascarella, E. T., Nora, A., & Terenzini, P. T. (1999). Interactions with peers and objective and self-reported cognitive outcomes across 3 years of college. *Journal of College Student Development*, *40*(1), 61–78.

Williams, C. L., Davidson, J. A., & Montgomery, I. (1980). Impulsive suicidal behavior. *Journal of Clinical Psychology*, *36*(1), 90–94. https://doi.org/10.1002/1097-4679(198001)36:1<90::AID-JCLP2270360104>3.0.CO;2-F

Williams, M. T. (2019). Adverse racial climates in academia: Conceptualization, interventions, and call to action. *New Ideas in Psychology*, *55*(May), 58–67. https://doi.org/10.1016/j.newideapsych.2019.05.002

Wing, C., Simon, K., & Bello-gomez, R. A. (2018). Designing Difference in Difference Studies : Best Practices for Public Health Policy Research.

Winkelmes, M.-A., Bernacki, M., Butler, J., Zochowski, M., Golanics, J., & Weavil, K. (2016). A Teaching Intervention That Increases Underserved College Students' Success. *Peer Review*, *18*(1/2), 31.

Winzer, R., Lindberg, L., Guldbrandsson, K., & Sidorchuk, A. (2018). Effects of mental health interventions for students in higher education are sustainable over time: A systematic review and meta-analysis of randomized controlled trials. *Peer J*, *6*(e4598), 1–27. https://doi.org/10.7717/peerj.4598

Wolf, D. S., Sax, L., & Harper, C. E. (2011). Parental Engagement and Contact in the Academic Lives of College Students. *Journal of Student Affairs Research and Practice*, *46*(2). https://doi.org/10.2202/1949-6605.6044

Wolitzky-Taylor, K., LeBeau, R. T., Perez, M., Gong-Guy, E., & Fong, T. (2020). Suicide prevention on college campuses: What works and what are the existing gaps? A systematic review and meta-analysis. *Journal of American College Health*, *68*(4), 419–429. https://doi.org/10.1080/07448481.2019.1577861

Woodbridge, M. W., Goldweber, A., Yu, J. W., Golan, S., & Stein, B. D. (2014). *California Colleges and Universities Collaborate to Support Student Mental Health*. Los Angeles: California. https://doi.org/10.4324/9781315665825-91

Woodford, M. R., Han, Y., Craig, S., Lim, C., & Matney, M. M. (2014). Discrimination and Mental Health Among Sexual Minority College Students: The Type and Form of Discrimination Does Matter. *Journal of Gay & Lesbian Mental Health*, *18*(2), 142. https://doi.org/10.1080/19359705.2013.833882

Woodford, M. R., Joslin, J. Y., Pitcher, E. N., & Renn, K. A. (2017). A Mixed-Methods Inquiry Into Trans* Environmental Microaggressions on College Campuses: Experiences and Outcomes. *Journal of Ethnic and Cultural Diversity in Social Work*, *26*(1–2), 95–111. https://doi.org/10.1080/15313204.2016.1263817

Woodford, M. R., Kolb, C. L., Durocher-Radeka, G., & Javier, G. (2014). Lesbian, Gay, Bisexual, and Transgender Ally Training Programs on Campus: Current Variations and Future Directions. *Journal of College Student Development*, *55*(3), 317–322. https://doi.org/10.1353/csd.2014.0022

Woodford, M. R., Kulick, A., & Atteberry, B. (2015). Protective Factors, Campus Climate, and Health Outcomes Among Sexual Minority College Students. *Journal of Diversity in Higher Education*, *8*(2), 73–87. https://doi.org/10.1037/a0038552

Woodford, M. R., Kulick, A., Garvey, J. C., Sinco, B. R., & Hong, J. S. (2018). LGBTQ Policies and Resources on Campus and the Experiences and Psychological Well-Being of Sexual Minority College Students: Advancing Research on Structural Inclusion. *Psychology of Sexual Orientation and Gender Diversity*, *5*(4), 445–456.

Woodford, M. R., Kulick, A., Sinco, B. R., & Hong, J. S. (2014). Contemporary heterosexism on campus and psychological distress among LGBQ students: The mediating role of self-acceptance. *The American Journal of Orthopsychiatry*, *84*(5), 519–529. https://doi.org/10.1037/ort0000015

Woolston, C. (2020). Pandemic and Panic for US Graduate Students. *Nature*, *585*(7823), 147–148. Retrieved from https://search.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/en/covidwho-756197

Woolston, C. (2021). 'Crisis' Looms on US Campuses. *Nature*, *590*, 171–172.

Wootson, C. (2018, May 11). A Black Yale Student Fell Asleep in Her Dorm's Common Room. A White Student Called Police. *The Washington Post*. Retrieved from https://www.washingtonpost.com/news/ grade-point/wp/2018/05/10/a-black-yale-student-fell-asleep-in-her-dorms-common-room -a-white-student-called-police/?noredirect=on&utm_term=.697305387b4a

Working Group on Attorney Mental Health. (2019). *The Impact, Legality, Use, and Utility of Mental Disability Questions on the New York State Bar Application*.

World Health Organization. (2002). *Prevention and Promotion in Mental Health*. Geneva. Retrieved from https://apps.who.int/iris/bitstream/handle/10665/42539/9241562161.pdf

Worsley, J. D., Harrison, P., & Corcoran, R. (2021). The role of accommodation environments in student mental health and wellbeing. *BMC Public Health*, *21*(1), 1–15. https://doi.org/10.1186/s12889-021-10602-5

Wyman, P. A., Brown, C. H., LoMurray, M., Schmeelk-Cone, K., Petrova, M., Yu, Q., … Wang, W. (2010). An outcome evaluation of the sources of strength suicide prevention program delivered by adolescent peer leaders in high schools. *American Journal of Public Health*, *100*(9), 1653–1661. https://doi.org/10.2105/AJPH.2009.190025

Wyn, J., Cahill, H., Holdsworth, R., Rowling, L., & Carson, S. (2000). MindMatters, a whole-school approach promoting mental health and wellbeing. *Australian and New Zealand Journal of Psychiatry*, *34*(4), 594–601. https://doi.org/10.1046/j.1440-1614.2000.00748.x

Xiao, H., Carney, D. M., Youn, S. J., Janis, R. A., Castonguay, L. G., Hayes, J. A., & Locke, B. D. (2017). Are We in Crisis? National Mental Health and Treatment Trends in College Counseling Centers. *Psychological Services*, *14*(4), 407–415. https://doi.org/10.1080/08831157.1986.9925783

Xu, Z., Huang, F., Kösters, M., Staiger, T., Becker, T., Thornicroft, G., & Rüsch, N. (2018). Effectiveness of interventions to promote help-seeking for mental health problems: Systematic review and meta-analysis. *Psychological Medicine*, *48*(16), 2658–2667. https://doi.org/10.1017/S0033291718001265

Yager, Z., & O'Dea, J. A. (2008). Prevention programs for body image and eating disorders on University campuses: A review of large, controlled interventions. *Health Promotion International*, *23*(2), 173–189. https://doi.org/10.1093/heapro/dan004

Yamaguchi, S., Wu, S. I., Biswas, M., Yate, M., Aoki, Y., Barley, E. A., & Thornicroft, G. (2013). Effects of short-term interventions to reduce mental health-related stigma in university or college students: A systematic review. *Journal of Nervous and Mental Disease*, *201*(6), 490–503. https://doi.org/10.1097/NMD.0b013e31829480df

Yard, E., Radhakrishnan, L., B., M. F., S., M., Gates, A., Stein, Z., … Stone, D. M. (2021). Emergency Department Visits for Suspected Suicide Attempts Among Persons Aged 12-25 Years Before and During the COVID-19 Pandemic - United States. January 2019-May 2021. *Morbidity and Mortality Weekly Report*, *70*(24), 888–894. Retrieved from https://doi.org/10.15585/mmwr.mm7024e1

Young, T., Macinnes, S., Jarden, A., & Colla, R. (2020). The impact of a wellbeing program imbedded in university classes: the importance of valuing happiness, baseline wellbeing and practice frequency. *Studies in Higher Education*, 1–20. https://doi.org/10.1080/03075079.2020.1793932

Yusufov, M., Nicoloro-Santabarbara, J., Grey, N. E., Moyer, A., & Lobel, M. (2018). Meta-Analytic Evaluation of Stress Reduction Interventions for Undergraduate and Graduate Students. *International Journal of Stress Management*, *26*(2), 132–145. Retrieved from http://dx.doi.org/10.1037/str0000099

Zalsman, G., Hawton, K., Wasserman, D., van Heeringen, K., Arensman, E., Sarchiapone, M., … Zohar, J. (2016). Suicide prevention strategies revisited: 10-year systematic review. *The Lancet Psychiatry*, *3*(7), 646–659. https://doi.org/10.1016/S2215-0366(16)30030-X

Zenner, C., Herrnleben-Kurz, S., & Walach, H. (2014). Mindfulness-based interventions in schools—A systematic review and meta-analysis. *Frontiers in Psychology*, *5*(603), 1–20. https://doi.org/10.3389/fpsyg.2014.00603

Zhou, S., Banawa, R., & Oh, H. (2021). *Stop Asian Hate: The mental health impact of racial discrimination against Asian American Pacific Islanders*.

Zimmerman, M. A., Bingenheimer, J. B., & Behrendt, D. E. (2005). Natural mentoring relationships. In D.L. Dubois & M. J. Karcher (Eds.), *Handbook of youth mentoring* (pp. 143–157). Thousand Oaks, CA: Sage.

Zumbrunn, S., McKim, C., Buhs, E., & Hawley, L. R. (2014). Support, belonging, motivation, and engagement in the college classroom: A mixed method study. *Instructional Science*, *42*(5), 661–684. https://doi.org/10.1007/s11251-014-9310-0

Zuroff, D. C., & Schwarz, J. C. (1978). Effects of transcendental meditation and muscle relaxation on trait anxiety, maladjustment, locus of control, and drug use. *Journal of Consulting and Clinical Psychology*, *46*(2), 264–271. https://doi.org/10.1037/0022-006X.46.2.264