A Comprehensive Approach to Mental Health **Promotion and Suicide Prevention for Colleges and** Universities: Insights from the JED Campus Program

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Introduction and Rationale

Suicide rates have risen among young people ages 18-25 in the United States over the past ten years (see Figure 1) [1]. Mental health concerns are on the rise as well, with more teens and young adults experiencing challenges such as anxiety and depression than in years and generations past [2,3]. Almost 30 percent of young adults ages 18-25 have had a diagnosable mental illness, and 9 percent have a serious mental illness, demonstrating a peak in past-year prevalence in this age range compared to older age ranges (see Figure 2) [4]. The median age of onset of most reported mental health problems occurs before age 25 [5,6].

Nearly 20 million young people attend colleges and universities in the United States, making these institutions important potential "safety nets" to protect young adult mental health [7]. College enrollment has increased by 26 percent from 2000 to 2018, and is expected to continue to rise to close to 37 million students by 2029 [8]. The diversity of college students has grown over the past 25 years, to include higher representation of students of color [9].

In 2019, a reported 36 percent of undergraduate college students screened positive for depression and 31 percent screened positive for anxiety [10]. At some point during the year, 66 percent of students reported overwhelming anxiety, 56 percent reported feelings of hopelessness, and 45 percent felt so depressed it was difficult for them to function [11]. These rates were higher among females than males. Students of color face these and additional challenges associated with accessing care for mental health conditions. Rates of reported depression and anxiety were found to be higher among Hispanic/Latinx, multiracial, Asian/ Asian-American, and Arab/Arab American students than national rates [12,13]. Access to care is also lower for students of color, resulting in lower diagnoses and treatment [14]. The quality of student mental health is predictive of persistence in college and other academic outcomes. Poor student mental health is associated with lower GPAs, discontinuous enrollment, and higher dropout rates [15,16,17]. The consequences of unmet mental health needs extends beyond educational ones to broader societal issues, resulting in issues such as disability, unemployment, poverty, and social isolation [18]. It is advantageous for colleges and universities to invest in student mental health for immediate and longer-term implications.

Despite these significant student mental health challenges, college counseling centers serve on average only 12 percent of their total student population on an annual basis and are struggling to meet rising demand for their services [19]. Recent studies have shown a rise in student mental health concerns after the onset of COVID-19, including an increase in stress, anxiety, depression, and loneliness related to the threat of the virus as well as the abrupt change in daily lifestyle [20,21]. Impacts have been more severe for students of color and LGBTQ+ students [22,23]. The shift to virtual learning has led to significant adjustments in the way counseling centers interact with students. Financial deficits have resulted in a reduction of the very staff members who are needed to support students during this particularly uncertain time [24,25].

The magnitude of these challenges calls for a comprehensive public health approach that addresses mental health promotion, prevention of mental illness and substance misuse, and early intervention in addition to a direct service treatment and clinical response.

A Review of Suicide Prevention Interventions in College Settings and Beyond

Most studies on suicide prevention have focused on a single or only a few factors rather than a multidimensional comprehensive approach. Effective mental health treatment approaches for suicidal behaviors include mindfulness-based cognitive behavioral therapy [26] and dialectical behavioral therapy [27,28].

Means restriction is a method of preventing suicide that has received the most empirical attention [29]. Means restriction refers to approaches that limit a person's access to dangerous means, such as safe medication storage or firearm restriction [30]. Effective suicide prevention strategies have ranged from countries banning or reducing their use of lethal pesticides, safeguarding suspension bridges, and securing high locations by installing safety nets [31,32,33]. A meta-analysis on structural interventions at "hot spot" sites showed a significant reduction in suicides at those particular sites [34]. Recent studies have looked at the differences in suicide rates in states with stricter gun laws, finding that states that restricted gun purchases among 18- to 20-year-olds showed a reduction (1.91)

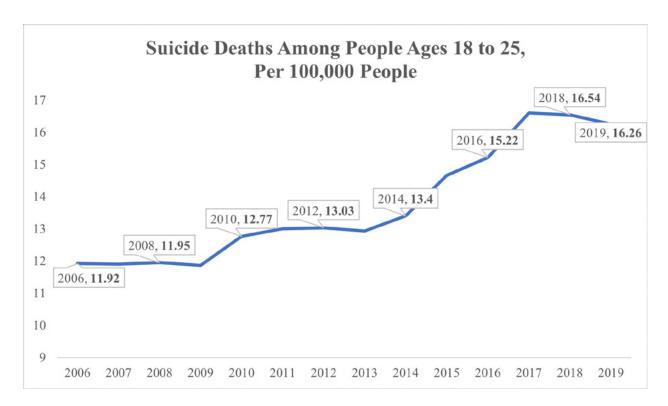


FIGURE 1 | U.S. Teen and Young Adult Suicide Rates SOURCE: CDC/WISQARS, 2021

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per 100,000) in suicide rates compared to states that did not restrict gun laws for this age range [35]. Experts recommend suicide prevention approaches that also include risk assessment and mental health treatment, as well as monitoring of and reduced access to lethal means [36]. Another review found that means restriction, medical provider education about risk factors for suicide, and gatekeeper training were the most promising practices for suicide prevention [37].

Gatekeeper training instructs "gatekeepers," such as college campus professionals or students, on warning signs demonstrated by those at risk for suicide and ways to help them get the support they need [38]. A 2013 review found that programs such as gatekeeper training and mental health curricula improved students' knowledge and attitudes about suicide prevention but did not decrease suicidal behaviors [39]. However, several recent studies have looked specifically at peerfocused gatekeeper trainings, recognizing that there is insufficient support on the effectiveness of these interventions in college populations. Preliminary findings suggest that peer gatekeeper training programs increase both real and perceived knowledge immediately following the training but that these knowledge gains often drop off 3-5 months later [40]. However, Rallis et al. did find that referrals to mental healthcare increased at 3-month follow-ups [40]. The effect of this type of intervention on suicidal behavior is unknown [40]. There is some suggestion that gatekeeper training activities that include role playing and practice using personalized feedback are more effective than gatekeeper training activities that do not contain these elements [41]. There is some early evidence that the Kognito avatar-based suicide prevention program is somewhat effective, perhaps partially because it relies heavily on these types of activities. In a randomized controlled trial, the authors found that significantly more students were referred by peers to counseling in the following two months as well as a two-fold increase in help-seeking among trainees themselves [41].

When it comes to help-seeking, the literature suggests that a multi-modal approach is most effective. Psychoeducation and public campaigns tend to be the most commonly used methods of increasing help-seeking behaviors, but there is limited evidence that these methods are particularly effective [42]. When combined with other interventions, however, there is often more of a response. Multimodal programs such as Signs of Suicide (SOS), which combines screening with gatekeeper training, public campaigns, psychoed-ucation, and crisis intervention procedures, show more promise in the prevention of suicide among young people [42]. Evidence suggests that these multi-modal interventions are also most effective when a multidisciplinary team is involved in implementing them [42].

A comprehensive suicide prevention model was developed at the U.S. Air Force in response to several suicides in the 1990s. The "Air Force model" consisted

Past Year Prevalence of Any Mental Illness Among U.S. Adults (2019)

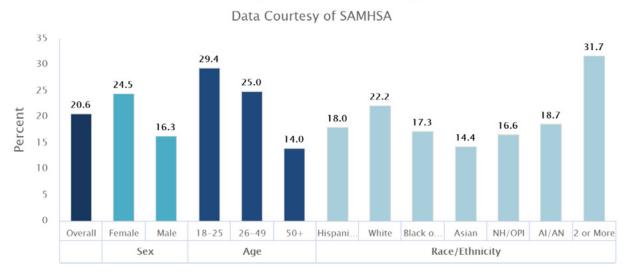


FIGURE 2 | Past Year Prevalence of Any Mental Illness Among U.S. Adults, 2019 SOURCE: National Institute of Mental Health, 2020

of a community-wide intervention based on recommended suicide prevention approaches by the Centers for Disease Control and Prevention (CDC) at the time that reduced risk factors for suicide by focusing on destigmatizing help-seeking for mental health challenges and enhancing protective factors by educating community members about mental health promotion. The model also included mandated changes in policy such as leadership awareness education and training, establishing therapist-patient privilege for personnel with mental health concerns, and instituting multi-disciplinary teams to respond to distressing events, including death by suicide of peers. Implementation of the Air Force model led to a 33 percent reduction in suicides in the Air Force from the years preceding the intervention (1990-1996) to the years thereafter (1997-2002). This reduction was sustained for 11 years after the prevention model was launched [43].

Taken together, these findings show promising support of a comprehensive approach to suicide prevention through multiple interventions such as ones that facilitate early identification of risk, promote help-seeking, provide evidence-based treatment, and restrict lethal means.

Indeed, over the past decade, several of the leading mental health promotion and suicide prevention organizations in the U.S. have recommended comprehensive strategies, including the Suicide Prevention Resource Center, National Strategy for Suicide Prevention, and CDC [44,45,46].

Origin and Development of a Comprehensive Approach to Mental Health Promotion and Suicide Prevention for Colleges and Universities

The Jed Foundation (JED) is a nonprofit organization that works to protect the mental health and reduction of suicide among this nation's young people, ages 13-30. JED consults with higher education across the U.S. to evaluate and support individual schools' mental health and suicide prevention approaches, programs, policies, and services. JED's Comprehensive Approach to Mental Health Promotion and Suicide Prevention for Colleges and Universities ("JED's Comprehensive Approach") is adapted from an evidence-based model that was shown to reduce suicides among U.S. Air Force personnel [47,48].

In 2004, JED and a panel of advisors—including suicide prevention researchers, mental health clinicians in higher education, and student service professionals—

adapted the Air Force model into a Comprehensive Approach to serve students in a university setting. This model addresses four major thematic areas (and seven strategic domains—see *Figure 3*) that reflect a public health approach:

- 1. promoting resilience and protective factors (promoting life skills and social connectedness),
- encouraging early intervention practices (identifying at-risk students and supporting help-seeking behavior),
- ensuring access to clinical services, including mental health support, substance misuse services, and crisis management procedures, and
- implementing environmental safety and means restriction (restricting access to potentially lethal means domain). [49]

Each of the seven domains in JED's Comprehensive Approach is briefly summarized below.

Develop Life Skills

Promoting a student's social-emotional development through life skills education can impact well-being and academic success [50]. These life skills include exploring identities and values, developing supportive relationships and friendships, developing innovative solutions to solve problems, understanding and regulating emotions, developing and practicing resilience, and promoting a healthy lifestyle [51]. While limited research exists on the benefits of life skills education among young adults in university settings, the authors of this manuscript believe that life skills education is an essential approach to aiding college students in adjusting to university life, dealing with everyday stressors in college, and progressing through college into a career. Ensuring that students develop emotional and interpersonal awareness is a true preventative strategy aimed at enabling students to thrive. On college campuses, it is important that life skills development is infused in and out of the classroom and coordinated across various departments, such as residential life, student groups, health promotion, and fitness/recreation.

Promote Social Connectedness

Research shows that loneliness and social isolation are risk factors for suicide [52]. Consequently, students' connectedness to family, friends, and the campus community may be protective against the risk for suicide

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and mental health problems. Because students often reach out to their peers when they need emotional support, they are more likely to be open and receptive to programming that is designed and delivered by their peers. Peer mentoring programs are very successful in this regard [53]. Educational and outreach campaigns that are designed and delivered by peers can promote successful navigation of the university experience.

Identify Students at Risk

Early identification of a mental health problem is a critical step in the prevention of suicide and an essential component of an effective campus mental health promotion and suicide prevention initiative. Studies show that among students who have died by suicide, a vast majority of them did not receive mental health care [54]. Identifying students at risk includes supporting students' transition to university life by continuing care for new students with histories of mental health problems or substance misuse; ensuring students are offered mental health and substance misuse screenings; and training students, staff and faculty to identify, consult, and refer students who may be at risk for these issues to services on campus.

Increase Help-Seeking Behavior

Students often turn to their friends or family before seeking out mental health care services, in times of emotional distress [55]. There are many obstacles to students seeking support from mental health professionals, including uncertainty of where or how to seek out services, uncertainty about whether these services are effective, questions about costs and insurance coverage, and cultural and societal stigmas around mental illness and accessing treatment [56,57]. Campuses are encouraged to address these barriers to help-seeking through mental health campaigns aimed at normalizing help seeking and de-stigmatizing mental health problems in addition to educating students about support and treatment resources. In JED's perspective, there should be help all around students and there should be no "wrong door" on campus for them to seek assistance.

Provide Mental Health and Substance Misuse Services

There are many students who need mental health treatment that are not receiving these services. Colleges and universities should ensure that all students are offered comprehensive mental health care that offers flexible hours and treatment modalities, responds

quickly to those that are at high of suicide, and provides off-campus referrals for longer-term treatment as needed. Campus mental health services should ensure adequate staff to student ratios, and hire and train a staff of clinicians that are qualified to serve a diverse group of students with various needs. The provision of substance use education, prevention, and treatment is also essential. Education about the dangers of substance misuse and drug diversion; the connection between substance use and relationship violence, academic performance, and overall well-being; and a variety of treatment options either on campus or in the community, is an important consideration for institutions.

Follow Crisis Management Procedures

Schools that have crisis management procedures ensure that campus-wide policies and protocols are responsive to students that are experiencing mental health or substance-related emergencies, and provide clinical support for these students. Postvention protocols ensure a streamlined process ensuring an appropriate institutional response to a campus emergency such as a suicide or death and are essential to supporting the emotional health of the campus community. Providing access to crisis phone, text line, or after-hours services at all schools is critical in a campus setting.

Restrict Access to Potentially Lethal Means

A wealth of research shows that suicide can be prevented by removing or limiting access to self-harm [31]. Means restriction on college campuses include policies that limit students' access to firearms or other weapons; control toxic chemicals in laboratories; and limit access to high places such as rooftops or windows. Campuses should conduct an annual environmental scan to inspect buildings and facilities and identify potential access to dangerous means and take action to remove or reduce these risks.

There is also an overarching lens of strategic planning and equitable implementation. This model uses an engagement process anchored in strategic planning so that thoughtful decisions are made for prioritizing and selecting specific tactics that address the needs of each specific campus. Equitable implementation incorporates equity and inclusion into implementation practice to ensure the needs of students of color and underserved groups of students are being addressed at all stages of the approach on college campuses.

JED's Comprehensive Approach at Work: The JED Campus Program

With the JED Comprehensive Approach as a guideline, JED Campus was developed as a four-year structured intervention designed to build comprehensive programs and policies through customized support to promote mental health and reduce substance misuse and suicide for colleges and universities. Schools participating in the JED Campus program collaborate with JED to receive campus-and student-level assessments, strategic plans, and regular consultation from JED Campus Advisors to facilitate systems change efforts to implement JED's Comprehensive Approach.

The JED Campus Theory of Change proposes that college systems-level changes will positively impact the mental health-related behaviors and attitudes of students and promote a culture of caring on campus where students feel there are multiple doors to walk through for support. Strengthened attitudes and behaviors, along with improved access to support, will positively impact student's mental health and reduce at risk substance use, which will contribute to a reduction in suicides, better school retention and graduation,

and healthier life outcomes for students.

JED Campus is founded on two guiding principles. First, it is essential that support for student well-being, prevention of substance misuse, and prevention of suicide be a shared campus-wide responsibility. These issues can no longer be the sole or primary responsibility of the health or counseling centers. This is especially true now, after the onset of COVID-19, given the added pressure on counseling centers to support students' needs. While those departments have an important role to play, all campus offices are responsible for promoting and protecting the mental health of its students. Second, mental health and suicide prevention efforts must be acknowledged and supported by senior leaders on campus, such as the president and board of trustees. This support helps to ensure that the work can continue to be a priority for the institution over time.

Pre-and-post school-level assessments map to JED's Comprehensive Approach and include a detailed self-report from school administrators on the presence or absence of various programs, recommended policies, activities, and approaches that are supportive of stu-

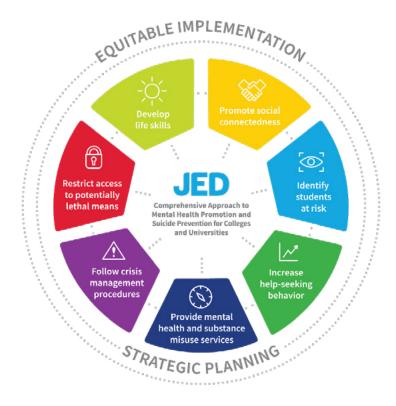


FIGURE 3 | JED's Comprehensive Approach to Mental Health Promotion and Suicide Prevention **SOURCE**: JED (www.jedfoundation.org)

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dent emotional health. Pre-assessments are conducted with schools participating in JED Campus at year one and post-assessments are conducted with JED Campus schools at year four. Once a school completes its preassessment, a JED Campus Advisor conducts a robust review of the assessment, existing programs and policies, the campus website, and gap areas. These findings, along with school's student data from The Healthy Minds Study (HMS) (a national student survey on mental health, service utilization, and related issues among college students, which is administered in JED Campuses at baseline and program completion) [59] and a student focus group on campus are presented and discussed with the school's mental health task force (JED Campus team) during a campus visit. Together, these findings inform the creation of the four-year strategic plan, which includes action items and recommendations for schools to consider that are organized according to JED's Comprehensive Approach. The JED Campus team and the JED Campus Advisor use the strategic plan to track progress over time and prioritize goals each quarter or semester, depending on the school's academic calendar. The JED Campus Advisor provides consultation and coaching on a regular basis, documenting where progress is made and where challenges or barriers arise. The strategic plan helps JED collect aggregate data to support and show the JED Campus impact at colleges and universities. This data helps inform our collective work and improvements to be made to better support the staff, faculty, and students at our JED Campuses. Progress on action steps stemming from the strategic plan is assessed quarterly, based on progress reports sent by the school.

Once the strategic plan is developed and agreed upon by the school, the school begins to implement the strategies and actions in the plan. For example, UC Davis consulted with students, campus police, and their crisis response team to identify suicide "hot spot" areas on their campus (locations at which suicide attempts were most likely to occur) and discovered that parking structures were the highest-risk location on campus. They placed permanent signage in high-risk locations on campus with crisis resources. Messages such as "You matter" or "You are not alone," along with information on whom to call for help, can help students feel supported during times of extreme distress. In another example, Barnard College responded to JED's recommendations to further promote student emotional health across the campus community. Barnard launched a campus-wide health and wellness initiative, Feel Well, Do Well @Barnard (https://barnard.edu/health-wellness), focusing on three components: promoting health and well-being, increasing social connectedness, and ensuring equity of access to services. Barnard then introduced the creation of a health and wellness center to house campus-wide wellness initiatives – all in support of fostering lifelong healthy development of women and girls attending this institution.

The JED Campus program began in 2013. There are currently 336 colleges and universities representing 4,585,789 students in the JED Campus program (see *Table 1*). Of these JED Campuses, 49 percent are private four-year institutions, 38 percent are public four-year institutions, and 13 percent are public two-year institutions. Schools are dispersed geographically across the U.S. in 41 states, with a heavier concentration of schools in the northeast (see *Figure 4*). 80 schools completed both pre-and-post assessments, and overall changes made at these institutions are shared in the following section.

Early Successes from the JED Campus Program

School-Level Changes

Table 2 summarizes action steps taken by schools that have completed the four-year JED Campus program. School-specific case studies and testimonials are shared by domain to illustrate the action steps implemented on campuses.

Colleges and universities that completed JED Campus developed strategic plans and set up task forces to promote and prioritize student mental health, with engagement and support from campus leadership. Many of these schools reported that after JED Campus, supporting student emotional health was viewed as a school-wide responsibility that extends beyond the confines of their health or counseling center, integrating measurable involvement from many campus partners.

Many colleges and universities that completed JED Campus have developed programs that support students' academic success through the improvement of physical and emotional well-being. They also have programs that support the development of resilience, emotional regulation and mindfulness.

Many colleges and universities that completed JED Campus have programs that foster tolerance and inclusivity on campus, and have systems or strategies that help to recognize and support students that are

	Number of New Schools	Number of New Students	% Public 4-Year	% Private 4-Year	% Public 2-Year
2013	16	213,549	19%	63%	19%
2014	55	893,111	40%	53%	7%
2015	36	555,222	25%	67%	8%
2016	51	493,585	57%	35%	8%
2017	29	355,719	28%	62%	10%
2018	32	329,808	38%	44%	19%
2019	45	716,930	40%	42%	18%
2020	43	634,051	44%	40%	16%
2021	29	393,823	3%	83%	14%
Total	336	4,585,798	38% (average)	49% (average)	13% (average)

TABLE 1 | JED Campus Program Participation: 2013 - 2021 **SOURCE**: JED Membership Report, 2021

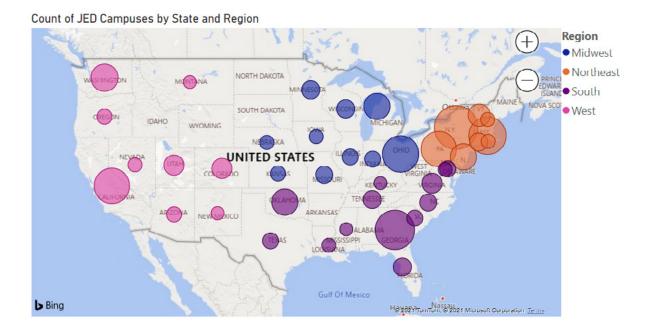


FIGURE 4 | Geographical Map of JED Campuses - 2013 - 2021 **SOURCE:** JED Membership Analytics, 2021

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	JED Campus Action Step Recommendation	Percent of Schools Completing this Action Step N=80 Schools
Strategic Planning and Equitable Implementa- tion	Emotional health is seen as a campus-wide issue with significant involvement from multiple departments/stakeholders.	79%
	School has a task force for student emotional health.	76%
	This task force includes involvement from upper administration.	80%
Develop Life Skills	School has campaigns or programs to educate students about the links between good physical health, emotional health, and academic success.	77%
	School has programs that support identifying and regulating emotions, mindfulness, and meditation.	77%
Promote Social Con- nectedness	School has programs/activities to promote tolerance and inclusiveness on campus.	99%
	School has resident advisor training and residence hall programming focused on connecting to isolated students.	85%
	Academic advisors are trained to ask about loneliness/isolation and refer/consult when concerned.	65%
Identifying Students at Risk	Students are screened for depression, anxiety, and suicidal ideation by health service clinicians at primary care visits.	84%
	Students are screened for substance misuse by health service clinicians at primary care visits.	73%
	School provides gatekeeper training programs for staff and faculty.	96%
Increase Help-Seeking Behavior	School has information available on school website to students about mental health and substance misuse.	88%
	School has campaigns or programs that destigmatize mental health.	90%
	School has campaigns or programs that inform students about campus resources for mental health and emotional support.	85%
Promote Mental Health and Substance Misuse Ser- vices	Counseling center provides at least one service to accommodate students' schedules (e.g., daily walk-in hours, extending time between appointments to accommodate new students, increasing referrals during busy times).	100%
	School has mental health services in place (through extended counseling center hours or outside services) for after-hours/emergency situations.	100%
	There is clear information on how to respond to a mental health emergency displayed on counseling center webpage.	96%
	School provides access to naloxone for students at high risk of opiate overdose.	92%
Follow Crisis Management Procedures	School has an "at-risk" or behavioral intervention team to address students of concern.	97%
	School has a postvention protocol, to address the aftermath of a student death or other campus emergency.	86%
	School has a 24/7 crisis phone or text line available on campus.	99%
Restrict Access to Potentially Lethal Means	School has conducted a campus environmental scan for potential access to lethal means in the past 12 months.	72%
	Toxic substances found in laboratories are tracked, monitored, and controlled.	97%
	School has prescription drug collection/return programs on campus.	46%

TABLE 2 | Action Steps that Schools Have Taken During JED Campus Participation **SOURCE**: JED Campus Strategic Plan, internal documentation

Box 1 | What a School Has Done to Support Student Emotional Health - WakeForest University

Strategic Planning

"The JED Campus program's strategic planning process has been really helpful in providing direction and focus to our mental health promotion, substance abuse and suicide prevention efforts. JED's recommendations have helped us implement new programs that strengthen our student supports, including a Brief Alcohol Screening and Intervention of College Students (BASICS) multi-tiered approach to meet the needs of students with different levels of alcohol infractions." - Denisha Champion, PhD, Assistant Director, Programming and Prevention, Wake Forest University

disconnected, disengaged, lonely, or isolated from campus life, such as Resident Advisor training and residence hall programming. They were also likely to train Academic Advisors to check in with and support these students.

Many colleges and universities that completed JED Campus identified students at risk for mental health challenges and suicide by implementing standardized mental health and substance misuse screenings by clinicians at health services during students' primary care visits. Schools made screening tools available to students by publishing them on counseling center webpages to allow students to identify their symptoms and reach out for help if needed. Schools offered gatekeeper training programs that trained campus professionals to identify students who may be at risk for suicide and refer these students to counseling services.

Many colleges and universities that completed JED Campus provided information for students on how to get help for substance misuse and mental health challenges on their school webpage. They were also more likely to implement campaigns on campus to destigmatize and reduce any negative associations with

mental health problems and advise students about various campus resources for emotional support.

All colleges and universities that completed JED Campus employed at least one specific strategy to accommodate new students requesting care at counseling centers to limit wait times that typically occur between when the appointment is requested and when the appointment is scheduled. These strategies include accommodating daily walk-in hours, extending time between appointments to open up space for new students, and increasing referrals during busy times. This flexibility is important given the high demand for counseling services on college campuses. These schools also provided clear directions on ways to respond to mental health emergencies available on counseling center webpages, and improved staff to student ratios. Schools had more access to naloxone, which is a medicine that is used to reverse the effects of an opioid overdose.

Colleges and universities that completed JED Campus implemented a 24/7 crisis hotline for students to access in an emergency and implemented a postvention protocol. Schools also ensured behavioral inter-

Box 2 | What a School Has Done to Support Student Emotional Health - University of Notre Dame

Develop Life Skills

The Notre Dame Alumni Association worked with the 2017 Senior Class Council, to design a life skills event, Life Beyond the ND Bubble (http://bubble.nd.edu/), to support graduating seniors' transition into the 'real world'. The 2021 virtual event covered topics such as searching for an apartment, establishing a budget, selecting an insurance plan, and financially preparing for retirement.

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Box 3 | What a School Has Done to Support Student Emotional Health - Cornell University

Promote Social Connectedness

Cornell Minds Matter, a student mental health advocacy group, provides weekly Feel Good Friday sessions, Dining with Diverse Minds events, off-campus social activities, and Random Acts of Kindness work to bring people together to connect and talk about student mental health. Student Assembly Lift Your Spirits Event to raise awareness of student mental health concerns, to destigmatize help-seeking, and encourage healthy self-care behaviors. Through the Social Belonging Project, Cornell is participating in a multi-campus research study on a brief intervention to enhance a sense of social belonging for incoming students. Cornell Outdoor Education provides recreational activities, outdoor experiences, and team-building opportunities to promote connectedness and social belonging.

Box 4 | **What a School Has Done to Support Student Emotional Health** - Fort Hays State University

Identifying Students at Risk

"We created, implemented, or modified institutional policies and practices to improve the university's environment and enhance our mental health and student adjustment services. For instance, the committee looked for ways to identify risks and begin dealing with them early. The health form that incoming students complete for the Campus Health Center now includes questions about mental health and alcohol and drug histories. Students who self-identify as having mild or moderate mental health issues get an email outlining services available on campus, and campus care providers follow that up by helping students develop self-care plans." - Dr. Tisa Mason, Fort Hays State University President

Box 5 | What a School Has Done to Support Student Emotional Health - University of Minnesota

Provide Mental Health Services

"As a result of our partnership with the JED Campus program, every department across campus has a designated mental health liaison who provides students with easier access to support in places on campus where they feel most comfortable. Additionally, students who present to the counseling enter are now seen within 24-48 hours in order to quickly service students who present with urgent concerns." - Michelle Trotter-Mathison, PhD, Assistant Director of Mental Health, Boynton Health, University of Minnesota

vention teams were collecting and responding to reports of student concern.

Many colleges and universities that completed JED Campus conducted campus environmental scans annually to locate and mitigate potential access to deadly means. Schools set up safe prescription medication disposals on campus through medication collection and return programs. In addition, many schools tracked, monitored, and controlled toxic substances in school laboratories. These are critical steps given the efficacy of means restriction activities on reducing suicides.

Early findings on student-level attitudes and behaviors from the Healthy Minds Study show great promise. Upon JED Campus completion, a greater percentage of students are reaching out for mental health support to campus professionals (including counseling staff and health center staff) and informal supports, such as family and friends. More students are aware of campus-wide mental health awareness efforts and are

participating in gatekeeper training programs to better identify and support students who may be at risk for mental health challenges. There is also less reported stigma associated with having a mental illness.

Summary and Priority Action Areas for Colleges and Universities Based on JED's Comprehensive Approach

Colleges and universities that completed participation in JED Campus with the goal of implementing JED's Comprehensive Approach made notable advances in multiple action steps that develop students' life skills, promote social connectedness, help identify students at risk for suicide, promote help-seeking behaviors, provide mental health and substance misuse services, follow crisis management procedures, and restrict access to lethal means.

Based on our review of the literature and work with the Comprehensive Approach through JED Campus

Box 6 | What a School Has Done to Support Student Emotional Health - Virginia Commonwealth University

Promote Help-Seeking Behavior, Develop Life Skills

The following syllabus statement on wellness is recommended for use by faculty. (Shared via email by VCU Director of Wellness Resource Center)

"At VCU, we acknowledge that you juggle many roles, including being a student. While your academics are a top priority, we know that sometimes finding balance among all the roles you have can be a challenge, especially when dealing with unexpected life events like illness or the loss of a loved one.

Please take care of yourself. The best time to practice self-care and manage stress is when you aren't overwhelmed or in distress. You can visit thewell.vcu.edu to learn more about ways to practice self-care or find upcoming programs you can attend.

Please take care of each other. If you are concerned about one of your classmates, please share that concern with me so that we can connect that student to additional support.

Please ask for help from me, [insert program specific sports here], or from one of the many resources here to help. Being proactive about help-seeking can make sure that you receive the support that you need before your academics are negatively impacted.

There are many resources at VCU and in the surrounding community available to assist you with non-academic concerns that you might have, so that you can be successful academically. Visit jed.vcu.edu/resources to learn more about how and when to access these resources."

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Box 7 | What a School Has Done to Support Student Emotional Health - University of Puget Sound

Provide Substance Misuse Services

"Campus discussions resulting from our participation in the JED Campus program led to expanding naloxone accessibility beyond our health services. Our campus security and our residential life professional staff now have access and are trained to administer naloxone in the event a student is experiencing an opioid overdose." - Donn Marshall, PhD, Director of Counseling, Health and Wellness Services, University of Puget Sound

Box 8 | What a School Has Done to Support Student Emotional Health - Pitzer College

Provide Crisis Management Services

"We appreciated the full process and are in a much more prepared space to support our campus community with mental health resources, awareness and prevention than before we became a certified JED Campus. The JED process allowed myself and other colleagues to stay on top of best practices in the field and utilize the JED seal of approval for creating justification for re-structuring our Case Management and behavioral intervention teams, demonstrating how best to handle crisis, hospitalization and other multifaceted challenges in a clear and comprehensive manner." ~Gabriella Tempestoso, Associate Dean/Director of Academic Support Services, Pitzer College

Box 9 | Making a Difference in a Student's Life: Lake Washington Institute of Technology

Provide Crisis Management Services

"A student was walking in our parking lot feeling overwhelmed and contemplating suicide by walking into oncoming traffic in front of the college. Then she noticed a sign near her that read, "You Matter, and You Are Not Alone." She called the number on the sign for our campus public safety office and our security officer immediately went to her location and escorted her to our student development office where the director and I met with her. We decided to call 911 for police assessment and transport to a local hospital; all of whom responded promptly. I believe this sign saved this student's life. During the incident, while police were on campus assessing the situation, another student became very nervous about their presence and was fearful it meant we had an active shooter on campus. The staff member she was with helped to calm her down and explain our emergency protocols. The student noticed the staff member's Mental Health First Aid (MHFA) certificate on the wall and asked if she was trained to help people in crisis. The staff member said yes and the student asked more about MHFA. The student said she could tell the staff member was trained and it was "reassuring and calming" to know that the college provides this training to staff as "it shows." The student was inspired and wants to do the training as well." ~Ruby Hayden, Vice President of Student Services, Lake Washington Institute of Technology Services

thus far, the authors of this manuscript offer the following priority action areas to colleges and universities on approaching and addressing the topic of mental health promotion and suicide prevention among their campus community to establish systematic change.

What Colleges and Universities Can Do to Support Student Emotional Health

Strategic Planning and Equitable Implementation

- Create and implement a strategic plan for supporting student emotional health consistent with the Guide to Mental Health Action Planning (http://www.jedfoundation.org/wp-content/uploads/2016/07/campus-mental-health-action-planning-jed-guide.pdf).
- Form an interdisciplinary task force or committee for mental health, sponsored by school leadership. This task force should represent multiple campus offices with leadership representation, such as the president or provost.
- Strategically communicate a shared responsibility for student emotional well-being, that targets faculty, staff, families, and students, and that explicitly include commitments to support a diverse student population.

Develop Life Skills

- Offer or enhance life skill programming through a variety of social and emotional learning programs, fundamental life skills programs, and programs aimed at promoting a supportive campus environment, addressing hazing, sexual harassment and relationship violence, social justice and advocacy, diversity, equity, and inclusion among other topics.
- Offer or enhance comprehensive programs on the impact of lifestyle choices on wellness (e.g., the importance of getting adequate sleep, ample exercise, proper nutrition).
- Implement campaigns or programs to educate the campus community about the benefits of caring for one's physical and emotional health, and its ties to academic success.
- Conduct an audit of existing life skills programs on campus to coordinate these programs across various departments and reduce redundancies, if they exist.
- Conduct regular data collection on the reach and impact of this programming.

Promote Social Connectedness

- Ensure there are ample opportunities on campus to help students connect to the campus community and to communities that share their identity. Such offerings can include student government, cultural clubs, athletics, and fraternity and sorority life.
- Establish defined spaces or areas in student unions or other public campus locations for student groups to convene. Expand this to virtual spaces given the current distance learning environment.
- Develop peer mentoring programs that allow upper-level students to mentor first-year students
- Develop proactive measures to help identify students that are disconnected or isolated from campus life and ensure that programs promote inclusion and belongingness of these students on campus.

Identify Students at Risk

- Request new incoming students to share a comprehensive medical history form that includes care received for mental health and substance misuse.
- Reach out to new incoming students and their families with mental health or substance use histories about services and resources available on campus prior to the students' arrival.
- Implement standardized mental health and substance misuse screenings by primary care clinicians at health care visits. For schools without health services, develop robust referral systems with community providers, hospitals, and emergency services to facilitate effective partnership and ensure continuity of care.
- Offer or expand school's gatekeeper training program for campus professionals (including faculty and staff members) in order to better identify, consult, and refer students who may be struggling with their mental health or substancerelated issues.
- Train students through peer identification programs to recognize, check in on, and support their peers in seeking support for their mental health or substance-related issues.
- Develop or refine a protocol for reporting students of concern.

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Promote Help-Seeking Behavior

- Ensure that students can easily find and access school counseling and health center websites.
- Implement campaigns or programs that are culturally inclusive and designed with input from students to encourage help-seeking by addressing the stigma associated with mental health and substance misuse problems on campus.
- Develop or enhance peer support programs overseen by the counseling center.

Provide Mental Health and Substance Misuse Services

- Provide counseling services that are flexible and easy for students to access, with short wait times and prioritization of the most urgent issues. This includes responsiveness to student needs that reflect best practices in digital mental health services.
- Ensure that the diversity of the school's counseling staff reflects the diversity of the student body.
- Provide resources to manage after-hours care and emergency situations.
- Develop Memoranda of Understanding (MOUs) with community agencies and hospitals most used by students to ensure coordination of care and follow-up.
- Facilitate access to adequate and comprehensive health insurance coverage.
- Have a written medical leave of absence and return from leave policy that have parity between mental health and physical health.
- Develop or refine a "medical amnesty" policy in which students who request emergency care due to intoxication or overdose will have limited or no disciplinary consequences.
- Develop or refine policies and protocols that ensure safe and effective prescription of opiates, tranquilizers and stimulants by including federal guidelines and expectations for prescribers/clinicians and students around medication management.
- Provide emergency naloxone to first responders and those at risk for overdose (as permitted by local law).
- Establish or expand campus support groups and recovery communities designed to house students recovering from addiction.

Follow Crisis Management Procedures

- Develop or refine a postvention protocol to ensure an appropriate institutional response to a campus emergency, such as a student suicide or death.
- Develop a behavioral intervention team to collect and respond to reports of students deemed high risk and in need of mental health intervention.
- Ensure that students have clear instructions on how to report or get help for any emergency during daytime and after-hours.
- Promote 24/7 crisis services (phone/text/chatline) through local or national suicide prevention platforms.
- Ensure continuity of care for at-risk students through a case management system.

Restrict Access to Potentially Lethal Means

- Conduct a campus environmental scan of all facilities and spaces at least annually to identify and reduce access to means that might be dangerous or deadly to students.
- Implement a policy containing firearms on campus.
- Install break-away curtain and closet rods in residence halls that release when excessive load is applied to the rod.
- Control, track, and monitor toxic substances found in university laboratories.
- Implement safe medication disposal through campus drug collection and return programs.

Challenges and Future Directions

Implementing and executing a program of this breadth on college campuses does come with certain challenges. A four-year program allows for ample time to plan for, implement, and achieve many of the action steps set forth by JED Campus, but leadership shifts and staff turnover naturally occurs, which can create delays in program implementation and completion. Having a dedicated Campus Advisor helps schools stay on task and update strategic plans. Additionally, JED is developing shorter duration programs that may allow for more schools to engage and participate in more customized approaches. These programs would cost less and thus allow for a wider range of institutions to benefit from JED's recommendations. While JED's Comprehensive Approach and early implementation of JED Campus was originally applied to a greater represen-

tation of four-year public and private schools, there is a growing portion of community college and technical schools that are now participating. We are still learning the impact of the approach and program among these schools.

Another limitation is regarding the data collection process and evaluation design, which relies heavily on self-report measures. Relying on self-report to assess change from pre-to-post can be subject to social desirability biases [58]. However, though self-report is used in these analyses, we can corroborate these reports by checking with other internal assessment tools such as progress scores in action steps, call logs, and other notations resulting from conversations between the JED team and the school. Future studies will also consider a more well-rounded database including additional student-level data on their attitudes, awareness and behaviors around mental health collected in a pre-post phase, and annual student incident data (e.g., suicides, hospitalizations, and counseling service use) reported by the school. These student data sets will allow us to analyze the impact of systems-level change on student and school outcomes.

Summary and Significance

These findings show significant and promising advances made by colleges and universities that participate in a multi-year intervention in which JED's Comprehensive Approach is implemented through a strategic plan, an interdisciplinary leadership team to oversee the effort, and ongoing expert advising. When mental health is seen as a shared responsibility of the entire campus community, more campus staff members can play a role in safety, health promotion, early identification,

treatment, and response. While future work will look at a higher number of schools, more student-level data, suicide and incident level data, and the impact of JED's Comprehensive Approach on non-traditional college campuses, we can already see that such a comprehensive approach to mental health and suicide prevention in a campus setting can result in significant improvements in a school's ability to protect its students.

Given the changes on college campuses and student experiences because of COVID-19, schools will need time to recover financially and return to a more stable state to continue supporting students both virtually and in person. More research will be needed to understand the impact of COVID-19 on the state of student mental health as conditions are rapidly changing and college staff are responding to student needs in real time.

Given the strong evidence-based support underlying JED's Comprehensive Approach and the endorsement of this approach among several national and government suicide prevention organizations and entities, these data represent a critical step in ensuring that schools are providing essential emotional safety nets for their students. Colleges and universities are well-positioned to serve as important communities that can play a key role in protecting the mental health of our nation's young people.

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Box 10 | Making a Difference in a Student's Life - University of Nebraska-Lincoln

"Getting involved in suicide prevention as a college student is so important as we can directly help our peers that may be hopeless or struggling. I look at suicide prevention a little differently; I see it as a skill someone can learn. Through JED, REACH, and other suicide prevention programming, we can teach this skill to so many people. From there, we can build safer communities just by equipping people with the right knowledge to help one another. I am so grateful to be a part of the suicide prevention efforts at the University of Nebraska. Not only have I felt like I have helped others, I have grown so much as a person. Suicide prevention trainings can teach you compassion and communication skills that will stick with you for a lifetime." - K.S., Senior

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