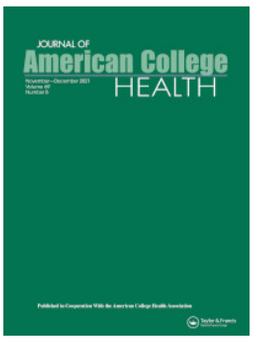

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REPORT

An intensive outpatient program for suicidal college students

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ABSTRACT

Objective: College counseling centers (CCCs) have limited capacity to accommodate high-risk students who need more intensive care than traditional outpatient treatment. We describe an Intensive Outpatient Program (IOP) to meet the specialized needs of suicidal undergraduates. **Participants:** Suicidal undergraduates aged 18–24. **Methods:** Fact-gathering meetings with local universities confirmed high need for prompt access to IOP care for students presenting in crisis at CCCs and emergency rooms, and post-inpatient discharge. We thus iteratively designed and implemented the College Option Services for Teens at Risk (COSTAR) IOP. **Results:** The 6-week program includes initial diagnostic evaluation and risk assessment followed by weekly skills groups, individual therapy, and medication management. Between September 2017 and January 2020, 148 students (*M* age = 19.7) attended an average of 5.7 COSTAR group sessions (*SD* = 4.7). **Conclusions:** A specialty IOP for suicidal college students holds promise in a stepped care approach for at-risk college students.

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Introduction

Suicide is currently the second leading cause of death worldwide among college students.[1] Unfortunately, suicidal thoughts and behaviors (STB) have increased among 18-to-25-year-olds in recent years,[2] and in parallel, so has demand for college mental health services.[3] To address increasing rates of STB among college students, risk screening initiatives and prevention interventions have been developed and disseminated.[4–6] Nevertheless, there remains a critical void in *treating* suicidal college students, many of whom need a higher level of care than traditional outpatient therapy.

College student mental health and risk for suicide

Young adulthood is a high-risk period for mental illness onset,[7] with nearly half of college students meeting criteria for a psychiatric disorder in a 12-month period.[8] Forty percent of college students report feeling so depressed in the past year that it was difficult to function,[9] 38% report binge drinking, and 22% report illicit substance use in the past month.[10] Depression, anxiety, and substance use – the leading mental health issues faced by students – are robustly associated with STB.[2,11]

Specific factors associated with college student life may contribute to risk for STB. For example, navigating independent living, daily schedules, and relationships in college result in poor sleep[12] and social disconnectedness,[11,13] both of which are associated with STB. College students may also explore gender and sexual identities; associated discrimination and victimization may further contribute to higher rates of mental health diagnoses and STB among bisexual and transgender students.[14] Additionally, STB among college students is associated with traumatic experiences,[15,16] including sexual victimization. Furthermore, college students who are transitioning from pediatric to adult mental health services may experience interruptions in care and disengagement from mental health services, which is a risk factor for STB. Therefore, college students face a unique set of risk factors that may heighten risk for STB.

Treatment for college students at risk for suicide

Mental health treatment available to college students on campus varies widely and depends on funding, location, and campus size.[17] Most college counseling centers (CCCs) use a short-term treatment model (mean = 5.6 sessions).[3] Although 70% of CCCs provide some psychiatric services,[3] availability is often inadequate relative to demand. Some students receive mental health treatment off campus with community providers; however, transportation, scheduling difficulties, insurance and cost are substantial barriers. Thus, CCCs assume responsibility for managing some severe student mental health problems without appropriate resources. Given the significant increase in student STB,[18] many campuses have invested in programs to train campus staff,

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faculty, and students to recognize and intervene on suicide warning signs.[19,20]

Yet, these prevention efforts are insufficient to address the increasing acuity of college STB. CCCs report a substantial increase in demand for services; over a five-year period, CCC utilization grew by 30–40% while institutional enrollment only grew by 5%.[3] CCCs report inability to accommodate the volume of students with STB who require rapid access to services.[3] Many CCCs struggle with staff shortage and burnout, space issues, and difficulties collaborating with other campus staff involved in managing high-risk situations (e.g. residence life, campus police).

To accommodate the increasing demand, some CCCs have increased clinical service offerings.[21] For example, some CCCs offer standard or adapted Dialectical Behavior Therapy (DBT)[22] programs for high-risk students.[23,24] Although DBT is associated with STB reductions among college students,[25] barriers to DBT implementation[26] limit feasibility. Other therapeutic modalities for STB, like Cognitive Behavioral Therapy (CBT),[27] have been examined for universal and indicated mental health prevention among college students,[28,29] but their efficacy with suicidal college students is unknown. Short term approaches such as Collaborative Assessment and Management of Suicidality (CAMS) show promise in reducing STB, but this brief approach to stabilization is not appropriate for severe and chronic STB.[30] To provide a higher level of care for more severe college student STB, campuses may partner with existing mental health services with expertise in treating STB. We describe a new program designed to meet the critical need for specialized services for at-risk college students.

Methods

We outline the development, structure, and content of COSTAR (College Option Services for Teens at Risk), an intensive outpatient program for suicidal college students.

STAR center and COSTAR program

Services for Teens at Risk (STAR) Center is a suicide prevention program founded in 1986 that provides outpatient assessment and treatment for suicidal youth aged 12–18 and includes an IOP. Over a 5-year period STAR increasingly received inquiries about services for college students, highlighting the critical need for stepped care options for suicidal college students. We initiated fact gathering meetings with six local universities. Each confirmed a high need for prompt access to IOP care for suicidal students. Together we envisioned IOP would fill a void for students following discharge from acute inpatient treatment, and students presenting in crisis at CCCs and local emergency rooms. Such students had previously been referred to general adult IOPs, but follow through was poor, largely attributable to timing that conflicted with students' schedules and discomfort and disconnection experienced by being in group with middle-aged and older adults.

Structure and content of COSTAR IOP

In Fall 2017 we started COSTAR. The mission of COSTAR is to partner with local colleges and universities to provide rapid and comprehensive assessment and treatment for undergraduate students aged 18–24 experiencing depression, anxiety, non-suicidal self-injury and/or STB. Following phone screen and in person clinical assessment, individuals who meet criteria for recent (i.e. last month) depression and/or anxiety disorders with associated impairment in functioning are considered eligible for IOP services. The IOP is offered in the early evening to accommodate college class schedules, and includes weekly skills groups, individual therapy, and medication management. The IOP includes a maximum of ten patients and has a 6-week intended length of treatment. Based on clinical severity, patients may continue in the group until appropriate discharge services are arranged. Group sessions focus on CBT and DBT skills and are tailored to college students' needs. Patients complete weekly symptom assessments electronically to inform data-driven treatment planning.[1] A subsequent paper will describe research outcomes on measures that have been gathered. The treatment team collaborates with university staff, parents, and other providers as needed, and provides support transitioning services upon discharge. Services are billed through patients' insurance companies, many of which require weekly authorization for continued level of care. Our health system has resources to create reasonable payment plans for patients who are uninsured or underinsured to ensure cost is not a barrier. Local institutions do not provide any financial resources to the program.

Suicide risk assessment

COSTAR employs a semi-structured interview approach that incorporates key features and definitions from the Columbia-Suicide Severity Rating Scale (C-SSRS).[31] The assessment includes careful review of current and worst lifetime STB, including direct questions about the patient's intent to die, methods, plans, preparatory behaviors, and prior attempts. We collaboratively develop a safety plan[32–34] that is updated throughout treatment. Identification of a support network for each patient is critical since college students may lack optimal family and/or peer support (e.g. due to family of origin-related adversity, recency of relationships on campus, physical distance from family and friends).

Medication management

Each COSTAR patient meets with a psychiatrist (who has specialized training in college mental health) at the psychiatric assessment and weekly throughout IOP. Given the diagnostic heterogeneity of this population, psychiatric medication management is individualized. Some patients are

[1]Patients are given the option to provide consent for their data to be used for research purposes. The University's Human Research Protection Office approved the collection of data for research purposes. Patients are informed that participating in the Research Registry will not affect their clinical treatment. If patients do not consent to the Research Registry, patients' data are only used for treatment planning.

Table 1. COSTAR IOP group schedule.

Time	Component	Details
4:00 – 4:10 pm	Self-reported symptom Assessment	Patients independently complete: 1. Daily mood and STB[a] ratings. 2. Weekly questionnaires on a tablet. *Patients who endorse STB receive a one-on-one risk assessment.
4:10 – 4:30 pm	Goal review	Group leader checks in with each patient sequentially in the group setting to assess progress toward self-stated goals (established at the end of the prior group): 1. Therapeutic goals 2. Practical goals to support tasks of independent living and enhance functioning
4:30 – 4:50 pm	Mindfulness	Psychoeducation on mindfulness. Mindfulness exercise. Reflection.
4:50 – 5:00 pm	Break	
5:00 – 5:50 pm	Skill building	DBT[b] and CBT[c] skills. Examples tailored to college students. Group discussion and practice.
5:50 – 6:00 pm	Break	
6:00 – 6:30 pm	Skill building	Continued group skills discussion and practice. Homework assignment to enhance skill generalization.
6:30 – 7:00 pm	Goal setting	Group leader checks in with each patient sequentially in the group setting to set the following SMART[d] goals: 1. Therapeutic goals 2. Practical goals *Leaders aim to facilitate conversation and connection among patients during goal setting to harness peer validation and support

[a]STB (suicidal thoughts and behaviors).
[b]DBT (dialectical behavior therapy).
[c]CBT (cognitive behavioral therapy).
[d]SMART (specific, measurable, attainable, relevant, time-based).

Table 2. Overview of group content for COSTAR IOP.

Skills group topics	Number of sessions	Content/focus
Psychoeducation	3	Psychoeducation on depression, anxiety, sleep, substance use, trauma, and self-care
Emotion regulation	2	Biosocial theory, understanding emotions, reducing vulnerability to emotion mind
Distress tolerance	2	Mindfulness, crisis survival skills, reality acceptance skills
Cognitive behavioral therapy (CBT)	2	Cognitive model, downward and upward spirals, cognitive distortions, thought records
Dialectics and validation	2	Thinking and acting dialectically, validation of self and others
Interpersonal effectiveness and communication	2	Objectives, self-respect, and relationships effectiveness
Behavioral activation	1	Opposite action, accumulating positive emotions, pleasant event scheduling

taking medication for the first time while others have had multiple medication trials. COSTAR providers discuss the importance of medication adherence and teach strategies for consistent medication use (e.g. setting a cellphone reminder, using a pill box) given the variability in college students' daily schedules. Providers ensure patients are familiar with systems for filling prescriptions, insurance coverage and co-pays because many students are managing these responsibilities for themselves for the first time. Stimulant and other controlled substances must be secured given potential for diversion among college students.

IOP schedule and content

COSTAR groups are held three days a week from 4 to 7 pm and are led by trained master's-level clinicians. To optimize treatment engagement, patients are required to attend all three weekly groups. Once a week, patients step out of group to meet with their individual therapist (50 min) and psychiatrist (30 min). A typical IOP group schedule (see Table 1) includes the following components: self-reported symptom assessment, goal review, skill building (see Table 2), and goal setting. Additional details about the symptom assessments, a unique facet of the STAR center, are included below.

Self-reported symptom assessment

Patients rate their mood (0–10 scale) and STB (since the last group) on a notecard and submit it to the group leader. Patients who endorse STB since the previous group receive a one-on-one safety/risk assessment check-in with a staff member. Once each week, patients complete symptom self-report questionnaires on a tablet [including the Ask Suicide-Screening Questions (ASQ),[35] the Quick Inventory of Depressive Symptomatology (QIDS),[36] and the General Anxiety Disorder-7 item (GAD-7)[37]]. COSTAR clinicians review these data with patients in individual sessions and with the team in weekly staff meetings to assess progress and inform treatment planning.

Results

Since opening in Fall 2017, COSTAR has maintained an active IOP. Between September 2017 and January 2020, 148 students (M age = 19.7, 71% female) who were assessed and

deemed appropriate attended an average of 5.7 COSTAR group sessions ($SD = 4.7$, range = 1–26). The majority of patients identified as female (63%) with 23% of patients identifying as male. Gender minority patients included transgender male (1%), genderfluid (1%), non-binary (4%), "other" (1%), and patients who identified with multiple gender identities (8%). Most patients identified as Non-Hispanic (96%). The majority of patients identified their race as White (69%); minorities included Asian (19%), American Indian (1%), Black (9%), and multiracial (1%).

Most patients were referred from CCCs or emergency services at the local psychiatric hospital. To date, COSTAR patients represent nine different local colleges and universities (ranging from walking distance to 1-h drive). Thus, partnering with local colleges and universities has proven highly feasible. In the first two years, COSTAR operated with one IOP. When the group is at capacity, COSTAR staff see eligible patients individually (on an outpatient basis, as often as clinically necessary) for interim appointments until an IOP slot opens. When the number of patients in need of COSTAR IOP services increases substantially and projected open IOP slots are minimal, we have had the capacity to open a second IOP. In the fall of 2019, we had the capacity to open a second IOP. Our high enrollment further underscores the critical need for specialized services for college students at IOP level of care.

Clinical considerations

We are continually updating program content and staff training to provide comprehensive care for suicidal college students. We highlight relevant clinical considerations from our experience implementing the program below.

Substance use and trauma

Data among college students receiving mental health services indicate nearly 40% report binge drinking and 24% report marijuana use in the last two weeks.[9] Additionally, one in five women are sexually assaulted while in college.[38] In program development, we recognized the need to incorporate content on substance use and trauma, particularly sexual assault, for this population. Group content addresses how substance use and trauma may contribute to and exacerbate psychiatric symptoms and STB, and underscores potential interactions between substances and psychotropic medications. Given that many college social environments involve substance use, we adopt a harm reduction model aiming to balance socializing and self-care. For patients whose substance use and/or trauma are primary, post-IOP discharge plans may include dual diagnosis or trauma-focused treatment.

Academic challenges

It is essential to address college students' academic status in the context of their mental health symptoms. Although some patients continue to maintain strong academic functioning, many experience significant academic impairment. Indeed, stress, anxiety, sleep difficulties, and depression are the top ranked factors that negatively affect college students' academic performance.[9] COSTAR staff ensure students are aware of their legal right to receive reasonable academic accommodations. In some circumstances a medical leave to stabilize mental health is warranted. COSTAR staff support patients through these processes.

Continuity of care

Since transitions in care are associated with high risk for suicide,[39] we start planning for discharge as early as assessment by discussing the patient's satisfaction with any current mental health providers and developing a provisional discharge plan. This is particularly germane for patients who are not engaged with an outpatient mental health team. While some COSTAR patients are appropriate for CCC services post-IOP, others require treatment outside the scope of their CCC. We encourage patients to share their discharge plans with a member(s) of their support network to facilitate with the transition.

Parental involvement

Parental involvement varies widely for COSTAR patients given the variability in patients' independence. Some live with their parents, while others are geographically distant (including numerous international students) and have infrequent communication. COSTAR patients are encouraged to *inform* parents of their COSTAR participation; however, parental *involvement* is individualized based on the patient's preferences and needs. We support patients in developing their independence as young adults and recognize when parental involvement is necessary for practical (e.g. insurance coverage) or safety concerns.

University involvement

Local colleges and universities have been, and continue to be, directly involved as community partners in the program. Prior to program launch, STAR leadership met with administration and CCC leadership and staff of several of the local colleges to conduct a thorough needs assessment and gather feedback on program direction (e.g. structure, content). We then hosted an open house one month prior to opening COSTAR. We invited all local university faculty and staff to meet the COSTAR staff, learn about the program, and tour the facilities. Since program launch, representatives of Costar leadership meet at least biannually with representatives from those colleges that frequently refer students in order to elicit feedback and reinforce relationships between staff. In this way, we aim to foster the collaborative process between the universities and COSTAR staff and ensure ongoing program responsiveness to the academic community's needs.

With respect to clinical care, COSTAR clinical staff interface with university personnel (with appropriate releases) for case management as clinically appropriate. For instance, COSTAR staff frequently communicate with CCC staff via phone during the initial assessment and discharge processes

to ensure continuity of care. Throughout treatment, COSTAR staff may also communicate with CCCs, resident advisors and academic advisors to discuss the student's well-being on campus, potential benefit of academic accommodations, and other pertinent health information.

Limitations

The COSTAR IOP has provided a tremendous resource to the community; however, a significant limitation is bridging patients to outpatient services. We currently do not have an outpatient COSTAR program. Additional program limitations include lack of specific programming for minority students, including first generation, foreign, Black, and gender/sexual minority students. Minority stress and discrimination are currently addressed during the individual therapy component of IOP. Future publications will describe service utilization and trajectories of change in symptoms and functioning over the course of COSTAR treatment, and examine predictors of treatment response. Additionally, future quality improvement initiatives may analyze process data from electronic medical records in order to identify if the program was implemented as designed.

Discussion

Suicide is the second leading cause of death among college students, and CCCs report an increase in students requiring crisis services. Existing care at CCCs and community mental health services are insufficient to meet the needs of many college students with STB. A higher level of care tailored to their unique developmental needs may fill a critical need. The COSTAR IOP, developed for 18–24-year-old undergraduate students, incorporates evidence-based CBT and DBT skills to target STB and associated psychopathology, within a developmental framework tailored for the specialized needs of this population. Experience implementing the program over 2.5 years indicates feasibility and supports a robust clinical need. Future research is needed to establish the effectiveness of this collaborative effort between universities and specialized psychiatric services to treat college students at-risk for suicide.

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Conflicts of interest

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Note

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