Expert Q&A: Evaluating New Tools to Address Youth Suicide in Primary Care

Behavioral Health

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This year as we reflect on World Mental Health Day, partners across Children's Hospital of Philadelphia (CHOP), the University of Pittsburgh and several other institutions are kicking off a new project—the Enhancing Treatment and Utilization for Depression and Emergent Suicidality (ETUDES) Center. In response to the dramatic rise in rates of adolescent suicide and suicide attempts in the past decade—particularly among Black and Hispanic youth—the team behind the Center is honing in on primary care settings to identify and treat suicidal youth.

The focus of the ETUDES Center is to augment the capacity of pediatric primary care providers to identify, refer, and manage youth at risk for suicidal behavior, with an emphasis on ensuring the tools developed are effective and acceptable for youth and families of color. Members of the team will also develop and study interventions designed to target known risk factors for depression and suicidal behavior, namely poor sleep, low activity and online victimization.

We sat down with a multidisciplinary group of experts involved in the project here at PolicyLab to learn more.

STEPHANIE DOUPNIK, MD, MSHP

Q: ***As one of the team members leading the main research study evaluating suicide interventions in primary care, can you talk about how the Center is unique in its approach to the topic of youth suicide***

risk?

A: The ETUDES Center aims to develop technology-based tools for pediatricians to help teens struggling with depression or suicidal thoughts. We are developing several different types of technologies, including smartphone apps, text messaging systems and clinician decision-support tools for the electronic health record. The goal is for pediatricians and families to have tools that work together to improve all parts of the care process: identifying teens at risk of depression or suicide, helping families understand treatment options and preferences, keeping teens safe at home and helping families engage in mental health care. We'll conduct this research in partnership with young people, parents, clinicians, and health care leaders, seeking their input throughout the process, to help ensure that the interventions work well for the people they are intended to help.

The ETUDES Center will include a number of related research studies. In the signature study, the research team will use existing data from clinical care at CHOP to test and refine an algorithm for identifying young people at risk of suicide. We will also conduct a randomized controlled trial of the iCHART intervention, which includes a computer-based assessment of specific mental health risks and treatment preferences, a safety planning smartphone app, and a text-messaging intervention to encourage teens to utilize the safety planning app and engage in treatment. As described by my colleagues below, the Center will also develop several new interventions to address suicide risk factors. In addition to these research studies, the Center aims to train and support the next generation of suicide researchers so this important work can continue.

ARIEL WILLIAMSON, PHD, DBSM

Q: ***How is sleep connected to youth suicide risk, and how are you planning to address this in the Center?***

A: Many adolescents experience sleep problems, including difficulty falling or staying asleep, daytime sleepiness, short sleep duration and late bedtimes. Sleep problems are especially common among youth with depression and having sleep problems can increase risk for adolescent depression over time. Research shows that sleep problems are also closely linked to the continuum of youth suicide risk, from suicidal ideation to death by suicide. For example, in one study, youth who died by suicide were more likely to experience sleep disturbances in the last week, over and above youths' severity of depressive symptoms. Thus, increased sleep problems are thought to be an important warning sign for suicidal thoughts and behaviors.

Fortunately, adolescent sleep problems are modifiable—a cognitive-behavioral treatment called the Transdiagnostic Sleep and Circadian intervention (TSC, also called Trans-C) has been shown to improve adolescent sleep problems for up to 12 months after treatment. TSC involves strategies to improve sleep health behaviors (e.g., sleep schedules, bedtime electronics usage) and address thoughts and beliefs that interfere with sleep (e.g., worries about the impacts of poor sleep). At the Center, we will conduct a multi-phase study to adapt and evaluate the impacts of TSC delivered via telehealth to adolescents in primary care. TSC has primarily been evaluated with White youth, raising questions about its effectiveness with youth of color. Additionally, TSC has not yet been evaluated with adolescents experiencing depressive symptoms and suicidal ideation, or as part of primary care practice.

To address these gaps in knowledge, initial phases of this work in the Center will involve qualitative interviews with teens, their caregivers, and primary care clinicians to identify whether adaptations to TSC strategies or delivery methods are needed. The final phase of this work is to conduct a randomized controlled trial of the adapted TSC to identify whether improving adolescent sleep can help reduce suicidal thoughts and behaviors in youth with depression.

RHONDA BOYD, PHD

Q: ***What is anhedonia, and how might the behavioral activation app help treat depression and prevent suicide?***

A: A major symptom of depression is a term called “anhedonia,” which among youth can mean low motivation, decreased activity levels and/or not experiencing enjoyment in activities. Behaviorally, youth may be withdrawn from family and friends and may stop engaging in extracurricular activities and hobbies. Research has linked more severe anhedonia with increased suicide risk. Behavioral activation is a therapeutic strategy that focuses on monitoring and increasing an individual's activity level to directly target anhedonia and subsequently can affect depressed mood.

At the ETUDES Center, we will adapt and test Vira, a behavioral activation mobile app that utilizes evidence-based therapy and behavior change strategies to increase insight into the association between activity patterns and mood and to improve engagement in activities. The GET ActivE intervention that we will be developing as part of the Center includes three components: 1) the Vira app, 2) activity monitoring through a smartphone app and 3) a health coach. A health coach will assist with teaching youth behavioral activation principles and encouraging activities via text or phone. The study will compare GET ActivE with activity monitoring. There is limited evidence of behavioral activation as a depression treatment for youth of color, especially Black youth or youth with suicidal ideation and behaviors. Thus, this study fills a needed gap in suicide prevention for diverse youth.

JASON JONES, PHD

Q: ***Why is online victimization and other aspects of social media important to study in the context of youth suicide?***

A: Online victimization, or cyberbullying, includes disparaging remarks, symbols, images or behaviors intended to inflict harm that occur in online spaces. Online victimization peaks in adolescence and commonly occurs on social media platforms. Although online victimization often co-occurs with in-person victimization, social media can facilitate more frequent and harsher victimization. Further, online victimization does not impact all youth equally. For example, Black and sexual and gender minority (SGM) youth experience disproportionately high rates of online victimization. Over half of Black youth have experienced victimization online involving discrimination or exclusion on the basis of race and SGM youth experience online victimization at three times the rate of non-SGM youth.

There is compelling evidence that online victimization is associated with a range of adverse psychosocial outcomes, including mental health struggles. Youth who experience online victimization are at increased risk for depression, self-harm, suicidal ideation and suicide attempt. Given the amount of time youth spend online, and clear connections between negative online experiences and suicidal thoughts and behaviors, it is critical to develop interventions that target online victimization, particularly among youth who are disproportionally exposed. As part of the ETUDES Center grant, we are developing and testing a social media chatbot intervention that will teach teenagers strategies for navigating online spaces, coping with victimization experiences, and accessing sources of support, with an emphasis on Black and SGM youth.

MOLLY DAVIS, PHD

Q: ***How are you looking at this project from an implementation science perspective, and why is that important in the context of the ETUDES Center?***

A: In the ETUDES Center, our goal is to design and test tools that will be effective and acceptable for the patients and families they are meant to help and the clinicians we hope will deliver them. To make that goal a reality, we need to consider factors that may facilitate or impede implementation in primary care from the start. The crux of implementation science focuses on how we can get practices we know work and are backed by evidence integrated into routine care. Often, research happens step-wise in that clinical trials precede implementation science work. Given there can be extensive lag time in embedding research findings into clinical practice, it can be beneficial to collect data relevant to clinical outcomes as well as implementation

simultaneously to potentially reduce the research-to-practice gap.

Throughout the ETUDES Center, we will be centering the voices of patients, caregivers and clinicians across activities. Specifically, we will gather stakeholder feedback throughout intervention development processes and following delivery of the interventions. We will ask about perceptions of the novel suicide risk identification methods we plan to examine. We will also collect information to ensure that, in general, we have a strong understanding of the primary care practices we will be partnering with (e.g., clinic workflows). Feedback will be collected through a combination of qualitative interviews and quantitative surveys, yielding rich information on what may make embedding ETUDES Center tools more or less likely in primary care in the short- and long-term. By infusing implementation science methods across Center activities, we can maximize the potential impact of the suicide and depression prevention tools being tested.

At PolicyLab, we're seeking to ensure that children and families receive the behavioral health services they need to be their healthiest selves both physically and mentally. To learn more about our Behavioral Health Research Portfolio, click here.

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