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Implementation of a Suicide Prevention Program in a Rural School

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Implementation of a Suicide Prevention Program in a Rural School:

Review of Literature

BY

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Implementation of a Suicide Prevention Program in a Rural School

This Doctor of Nursing Practice (DNP) Project is approved as a credible and independent investigation by a candidate for the DNP degree and is acceptable for meeting the project requirements for this degree. Acceptance of this DNP Project does not imply that the conclusions reached by the candidate are necessarily the conclusions of the major department.

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Abstract

Introduction: Suicide is a leading cause of death among today's youth. One in six youth have seriously considered attempting suicide, and one in 13 have attempted suicide at least once. Timely identification of those at risk and connection with appropriate help are critical. Elementary, middle, and high school teachers are ideally positioned to act as gatekeepers through early recognition of students in psychological distress and timely response and referral when appropriate.

Evidence Summary: Teachers report a sense of responsibility for providing indirect mental health services to youth but have a lack of sufficient training and preparedness. Kognito online simulations have shown improvements in gatekeepers' confidence in their ability to recognize, intervene, and refer at-risk suicidal youth for help.

Gaps: A lack of published literature focusing on school-based suicide prevention programs, especially for vulnerable populations and rural areas, was available. Limited evidence that focused on sustainability and long-term outcomes was also noted.

Recommendations for Practice: Kognito's gatekeeper training can be used to raise suicide awareness by improving knowledge, attitudes, and helping skills among teachers and school support staff. Early recognition and intervention as soon as possible with at-risk youth before suicidal behavior occurs are vital.

Keywords: At-Risk, gatekeeper, Kognito, school, teacher

Implementation of A Suicide Prevention Program in a Rural School

One in five youth have a mental health condition, with half of these conditions beginning by age 14 (National Alliance on Mental Illness [NAMI], 2021). According to NAMI (2021), only half of the nation's youth with mental health conditions received any kind of treatment in the past year, and only one-third of suicidal youth actively sought help (Torok et al., 2019). Most youth who attempt suicide have a significant mental health disorder. Suicide is the second leading cause of death in Americans 10-24 years old, with rates increasing nearly 60 percent from 2007 to 2018 (Brann et al., 2021; Curtin, 2020; Rural Health Information Hub [RHIhub], 2019). For each suicide death that occurs, there are approximately 50-100 youth suicide attempts (Torok et al., 2019).

Significance

The highest rates of suicide are among the American Indian/Alaskan Native, non-Hispanic white, and rural populations. The 2019 Youth Risk Behavioral Survey found 30.4% of project area high school students had seriously considered attempting suicide in the past 12 months, 17.4% had made a suicide plan, and 19.2% had attempted suicide at least once (Centers for Disease Control and Prevention [CDC], 2020a). The risk among rural students is double that of their urban counterparts while American Indian/Alaskan Native students have the highest rate of attempts with nearly four times the risk (Asher BlackDeer & Patterson Silver Wolf, 2020; CDC, 2020b; RHIhub, 2019).

Suicide involves a combination of risk factors including a history of mental health disorders, family history of suicide or mental health disorders, substance use disorders, adverse childhood experiences (ACEs), access to lethal means, stressful life circumstances, and unwillingness to seek help due to mental health or suicidal ideation

stigma (Suicide Prevention Resource Center, 2019). ACEs are stressful and traumatic events that occur during childhood that can have negative, lasting effects on youth's health and well-being (Lensch et al., 2021). The American Indian/Alaskan Native population is especially vulnerable to a number of these factors; the limited resources for prevention, treatment, and recovery further exacerbate the current disparities for both the American Indian/Alaskan Native and rural populations (Asher BlackDeer & Patterson Silver Wolf, 2020; Bartgis & Albright, 2016; Pham et al., 2021).

Emotional and social habits important for mental well-being are developed as children grow. Untreated mental health conditions and ACEs can have a detrimental impact on youth; thus limiting their opportunities to lead fulfilling lives as adults (Black et al., 2021; Choi et al., 2017; Singer et al., 2019). Negative consequences of untreated mental health conditions include functional impairment, disability, and mortality as well as substance abuse, poor school performance, school dropout, and increased risk-taking behavior (Albright et al., 2018; Bradley & Kendall, 2019). Youth with a history of ACEs have also been found to have an increased number of suicide attempts throughout their lifespan and are at an earlier age at first suicide attempt (Choi et al., 2017). The emotional and financial impacts of youth suicide and suicide attempts can also have a rippling effect on families, friends, and the economy (Black et al., 2021; Brann et al., 2021). According to Singer et al. (2019), up to 135 people can be affected by a single suicide death, with 25 of them reporting significant and persistent distress. The lifetime medical and work-loss costs alone are estimated to be over $70 billion each year (CDC, 2020b).

The coronavirus disease 2019 (COVID-19) pandemic had a negative effect on youth's mental health (Leeb et al., 2020; Holland et al., 2021; Yard et al., 2021).

Increases in poor mental health, suicidal behavior, substance use, and violence outcomes were reported during the pandemic (Holland et al., 2021; Yard et al., 2021). Emergency departments (EDs) were often the first point of care for youth experiencing mental health emergencies during COVID, particularly because other clinic, urgent care, or mental health services were inaccessible or unavailable. When widespread shelter-in-place orders were in place, youth were either unable to access or had very limited access to services (Leeb et al., 2020). The National Syndromic Surveillance Program at the CDC found the proportion of mental health-related ED visits among adolescents 12-17 years old increased 31% in 2020 from 2019 (Yard et al., 2021). The rate of ED visits for suspected suicide attempts also increased as the pandemic progressed among this age group, where the mean weekly number of ED visits for suspected attempts was 22.3% higher during summer 2020 and 39.1% higher during winter 2021 than corresponding periods in 2019. During winter 2021, ED visits for suspected suicide attempts were 50.6% higher among females compared with the same period in 2019; among males, the rate increased 3.7% (Yard et al., 2021). Youth may be particularly affected by mitigation measures related to the pandemic, causing them to be at higher risk for psychological distress and suicide. The mental health consequences of the COVID-19 pandemic are predicted to last longer and peak later than the actual pandemic itself (Holland et al., 2021; Yard et al., 2021).

Schools are in a unique position to offer intervention opportunities for at-risk youth, especially in rural areas with poor access to mental health services and no school counselors (American Foundation for Suicide Prevention, 2021; Robinson-Link et al., 2019). Kindergarten through 12th grade (K-12) students spend a significant portion of

their days with teachers and school support staff, allowing for unparalleled access to most of America's youth. School personnel also play an important role in students' growth and have many opportunities to contact and interact with them (Brann et al., 2021). However, research supports many teachers feel inadequately trained to identify or refer at-risk students and have limited knowledge of their school's resources for suicide prevention (Sylvara & Mandracchia, 2019). Kognito is an evidence-based program that offers educators and school support staff virtual training simulations that tackle real-life issues many youth experience, such as trauma, bullying, difficulties at home, failing grades, self-injurious behaviors, or thoughts of suicide. The goal is not for every teacher to become an expert in mental health, but rather to prepare to lead conversations that can change the lives of America's youth (Kognito, 2020).

Clinical Question

The PICOT question that guided this literature review is as follows: In K-12 administration, teachers, and staff at a rural Midwest school (P), how does the implementation of an evidence-based suicide prevention program (I) compared to no evidence-based program (C) affect participants' preparedness, likelihood, and self-efficacy in approaching potentially suicidal youth and the number of mental health referrals made (O) within 6 months (T)?

Methods

A literature review was completed using CINAHL, Cochrane, EBSCOhost research databases, PubMed, and ScienceDirect with the following keywords: *At-Risk, faculty, gatekeeper, Kognito, prevention, school, suicide, student, teacher,* and *trauma informed practices*. Inclusion criteria included peer-reviewed articles written in English

and published between 2016 and 2021. Articles must have also included school or college settings, training of staff, and Kognito. Articles written before 2016 and those that were not written in English were excluded. A total of 35 academic articles were found. Articles were further narrowed by their project applicability. Articles that focused on student gatekeeper training, those that did not include gatekeeper training, and news articles were excluded. A total of 18 articles were utilized for the literature review (see Appendix A). The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) Model (Appendix B) was used to evaluate and grade the articles with the following results: one IA, one IB, three IIA, five IIB, one IIC, one IIIA, three IIIB, one IVB, and two VB (Appendix C). Explanations of levels are also included in Appendix B.

An A grade indicates an article is high quality with consistent, generalizable results and recommendations. A B grade indicates good quality where results and recommendations are reasonably consistent with fairly definitive conclusions, and with a C grade, there is low quality and little evidence with inconsistent results or an insufficient sample size (Dang et al., 2022). The C rating article was due to a small sample size, but the article was still included due to its relevance. Permission (Appendix D) to use the JHNEBP Model (Dang et al., 2022) was obtained.

Evidence Summary

Schools can play a vital role in preventing youth suicide and promoting behavioral health. A “gatekeeper” can be defined as an individual that has primary contact with another individual who could be at risk for suicide. Gatekeeper training is one of the most effective suicide prevention strategies and can be utilized to improve knowledge, intervention behaviors, and referrals (Morton et al., 2021). However, a

multifaceted approach must be taken that includes school-based protocols and education in order to provide for best outcomes. No specific practice guidelines for school suicide prevention were found, so the Substance Abuse and Mental Health Services Administration (SAMHSA) and National Alliance on Mental Illness (NAMI) Maine's resources were integrated for use to build a suicide prevention program (NAMI Maine, 2021; SAMHSA, 2015). The literature review revealed the following themes: Role of schools, gatekeeper training, elementary versus high school, suicide prevention protocols, Gatekeeper Behavior Scale, SAMHSA School Suicide Toolkit, NAMI Maine School Intervention Flowchart, and gatekeeper behaviors.

Role of Schools

Suicide deaths typically prompt suicide prevention in schools. Schools are an essential environment for identification and prompt response to youth suicide risk (Shelemy et al., 2019; Singer et al., 2019). Students with a better connection to and positive perception of school are less likely to engage in suicide-related behavior or report suicidal thoughts and behaviors. Students are more willing to share information with teachers who actively listen and are empathetic and supportive (Bradley & Kendall, 2019). Therefore, teachers, coaches, bus drivers, and all support staff can fill a key role in the early identification and referral of at-risk youth. However, these school employees may not know suicide risk factors or how to appropriately talk about suicide risk or psychological distress despite their need and desire to intervene (Albright et al., 2016a; Robinson-Link et al., 2019).

School staff face significant pressure both in preventing youth suicide by recognizing warning signs early and in the aftermath of suicide (Singer et al., 2019).

Without training, teachers may lack confidence in their knowledge and ability to properly recognize those at-risk students or to provide needed support and management of students in distress (Asher BlackDeer & Patterson Silver Wolf, 2020; Long et al., 2018; Shelemy et al., 2019; Sylvara & Mandracchia, 2019). The potential role of these gatekeepers in promoting mental health extends far beyond early identification. With the help of school staff, students can develop the knowledge, resiliency, and emotional and social skills that can lead to positive mental health outcomes and improved quality of life (Brann et al., 2021; Long et al., 2018).

Gatekeeper Training

Gatekeeper training programs are among the most effective suicide prevention strategies. According to the United Health Foundation (2021), four out of five suicide deaths are preceded by warning signs. Suicide prevention initiatives train gatekeepers with the aim of increasing suicide knowledge and providing education to better identify risk factors and suicidal behavior. Properly trained gatekeepers know how to effectively manage at-risk individuals and "open the gate" to appropriate care as necessary (Morton et al., 2021).

Kognito is an online gatekeeper training platform with various modules for different populations. The *At-Risk* platform was established in 2010 by Ron Goldman and Dr. Glenn Albright following the shootings by Seung-Hui Cho at Virginia Tech (Kognito, 2020). Cho killed 32 people before taking his own life. After the shootings, Cho's mental health background was made public. He had a history of depression and anxiety disorders dating back to middle school. After moving to college, Cho lost the support system that sustained him throughout high school. He exhibited alarming behavior on campus and

submitted disturbing creative writing assignments that prompted two professors to suggest counseling. Cho threatened to kill himself leading to a one-night observation admission at the hospital and failed to follow up post-discharge for outpatient treatment at the campus counseling center. Due to concerns with violating Cho's privacy, no one had communicated with his parents to learn of his mental health history (Kapsidelis, 2020).

Goldman and Albright found academic institutions wanted a way to rapidly train faculty and improve confidence and skills in approaching and talking with students in psychological distress. Kognito delivers a practice based social emotional learning (SEL) curriculum that helps participants build critical life skills to navigate real-life situations, leading to positive outcomes both in and out of the classroom. In the *At-Risk for Educators* modules, faculty and staff members are immersed in a virtual environment where they interact with two to three students who are exhibiting symptoms of psychological distress. Each simulation in the *At-Risk* series is tailored to one of three grade levels: elementary, middle, or high school. The *Trauma-Informed* module was developed in 2018 in collaboration with trauma experts, the United Nations Children's Fund USA, and the Center for School Behavioral Health at Mental Health America of Greater Houston in response to Hurricane Harvey. In the *Trauma Informed* modules, participants are taught about the impact trauma can have on students and how to recognize when behavior may be a result of trauma or stress. Simulations can be completed in an hour or less, and progression through the modules is based on appropriate responses to the students (Kognito, 2020).

Gatekeeper training may increase knowledge of suicide warning signs and behaviors, expand communication strategies for discussing suicide with those at risk, and optimize the ability to refer at-risk youth to services (Albright et al., 2016a; Robinson-Link et al., 2019). The Kognito modules intend to improve real-world performance by offering a challenge to learners' existing skills, a simulated risk and judgment-free environment, time for skills reflection and adjustment of strategies, and continuous analysis of performance from a virtual coach (Albright et al., 2018; Long et al., 2018; Sylvara & Mandracchia, 2019).

Other advantages of online training methods include improving issues such as limited funding, time constraints, and competing priorities for schools by reaching many people in a cost-effective manner (Bartgis & Albright, 2016; Robinson-Link et al., 2019; Smith-Millman et al., 2020). Online methods can be highly beneficial where workforce turnover is high, such as in American Indian or rural communities, since training is flexible to address both new and experienced teachers to easily maintain and increase the number of school gatekeepers (Asher BlackDeer & Patterson Silver Wolf, 2020; Bartgis & Albright, 2016).

Elementary versus High School

School-based suicide prevention programs targeted for preschool and elementary students are limited. Mental health distress or stress among preschool and elementary students can look significantly different from that among middle and high school students. For example, psychological distress in children can manifest as certain behavioral issues or physical complaints such as competing for attention, increased irritability and aggression, or complaining of "feeling sick." The behavioral issues often

lead to a punitive response by school staff rather than a supportive, constructive one. Adults typically avoid talking about suicide as they believe it may be distressing for children or cause suicide. Most youth with suicidal ideation or attempts will not reveal their thoughts or behaviors on their own. Early childhood suicide prevention strategies support the use of SEL programs starting in preschool and elementary school to reduce suicide rates. Building SEL skills may prevent the development of significant risk factors for suicide while promoting protective factors from a young age as well as increase a child's ability to seek support (Singer et al., 2019). Gatekeeper training programs have also been implemented at the K-12 level with the goal of teaching staff how to recognize some of the varying language and age-specific concerns at the elementary, middle, and high school levels and how to appropriately refer to a counselor or provider.

Suicide Prevention Protocols

Identifying students who are at risk of suicide will be more likely to prevent suicide when the procedures that ensure these students receive appropriate services are in place. Local school districts who adopt suicide prevention protocols are better suited to protect school personnel and increase the safety of at-risk youth and the entire school community. It is essential to implement protocols for responding to at-risk students before implementing strategies such as training to help identify at-risk students. There are numerous school and state-specific protocols. Schools must implement protocols that best fit their district and needs. Protocols that include more comprehensive efforts such as safety plans and screening may be difficult to implement without an in-house school counselor to assist and provide ongoing evaluation of intervention effectiveness (SAMHSA, 2015).

Gatekeeper Behavior Scale

A standardized assessment tool must be used to determine the impact of gatekeeper training on the behavior of the gatekeeper and the individual at risk for suicide. The Gatekeeper Behavior Scale (GBS) is an assessment tool based on Kirkpatrick's four-level training evaluation model. The four levels include reaction, learning, behavior, and results. Participants' skills, attitudes, and intentions predict engagement to help those in psychological distress and those at risk for suicide (Albright et al., 2016b).

The GBS was administered to 8,931 *At-Risk* users at pre-training, post-training, and follow-up periods in Albright et al.'s (2016b) validation study. Albright et al. (2016b) found the GBS is a reliable tool for measuring three components of suicide prevention behavior: preparedness, likelihood, and self-efficacy. The GBS had high internal consistency and reliability with a Cronbach's alpha (α) of .93 and .94, respectively. Factor loadings showed all 11 individual items correlated with the three subscales and behavioral composite ($r \geq .84, p < .001$), indicating the higher the GBS score, the more likely participants are to engage in gatekeeper intervention behaviors. Criterion-related validity for likelihood to discuss concerns post-training was related to approaching at-risk students ($r = .219, p < .001$) and the number of students referred correlated with likelihood to refer ($r = .235, p < .001$) (Albright et al., 2016b). Refer to Appendix E for a detailed version of the GBS.

SAMHSA School Suicide Toolkit

The SAMHSA School Suicide Toolkit represents the best available evidence on preventing suicide among high school students. The toolkit does not endorse one specific

intervention but lists numerous tools and training programs to assist schools with designing and implementing district-specific suicide prevention programs. The information and tools in the toolkit help schools assess their ability to prevent and respond to suicide, understand strategies that may help at-risk students, understand how to act in the aftermath of a suicide, identify evidence-based prevention programs, and integrate prevention into a positive school climate. Kognito training is listed under staff education and training among other programs that focus on identifying suicide risk (SAMHSA, 2015). SAMHSA recommends all adults within the school community be trained to act as gatekeepers (Singer et al., 2019).

NAMI School Intervention Flowchart

NAMI is a non-profit organization that aims to improve the quality of life of those with and those affected by mental illnesses. NAMI provides advocacy, education, support, and public awareness about mental health (NAMI, 2021). Effective suicide prevention is comprehensive; since it is impossible to predict when a crisis may occur, preparedness is essential to guide school actions. Protocols provide school staff with direction, structure, and support to safely assist in a suicidal situation. NAMI Maine has several resources to help schools develop protocols individualized for their districts (NAMI Maine, 2021). Numerous states have adapted protocols from NAMI Maine's model school protocols. See Appendix F for the adapted Suicide Prevention Protocol Flowchart.

Gatekeeper Behaviors

Brief, online role-play simulations were found to be effective at improving and sustaining teacher attitudes and behaviors needed to be effective gatekeepers in the

school setting in a number of studies (Albright et al., 2016a; Bartgis & Albright, 2016; Black et al., 2021; Bradley & Kendall, 2019; Long et al., 2018; Rein et al., 2018; Robinson-Link et al., 2019; Smith-Millman et al., 2020; Timmons-Mitchell et al., 2019, Torok et al., 2019). Numerous studies also found the number of students identified to be in psychological distress, approached to discuss concerns, and referred to support services increased following training (Albright et al., 2016a; Bartgis & Albright, 2016; Black et al., 2021; Bradley & Kendall, 2019; Long et al., 2018; Rein et al., 2018; Smith-Millman et al., 2020; Timmons-Mitchell et al., 2019). Teacher to parent conversations about concerns, teacher to student conversations about accessing support services, and participant to participant conversations about student concerns also increased following training (Albright et al., 2016a; Long et al., 2018). Godoy Garraza et al. (2021) found active learning strategies such as role-play in addition to gatekeeper training can enhance training effectiveness through an increased comprehension of the interaction leading to an increased use of recommended practices.

Gaps in the Literature

Limited recent published studies that focus on school-based suicide prevention programs in rural schools were available. Many studies focused on the high school environment, followed by middle school and college settings. Limited studies were found focusing on *At-Risk* simulations at the elementary level. The elementary training focuses on how to incorporate parents of at-risk students, come up with a plan for their child, and connect them to helpful resources. There was a lack of randomized control trials that examined the impact on long-term health outcomes of those approached by Kognito-trained individuals. The longest follow-up time frame was 3 months. Also, no high-

quality studies or statistics were found that addressed which season is worst for youth suicide.

Recommendations for Practice

Youth suicide prevention measures call for a comprehensive approach that is adapted during times of infrastructure disruption and involves multisectoral partnerships and implementation of evidence-based strategies that address the range of factors influencing suicide risk (Yard et al., 2021). Online simulations allow for individuals to practice real-life skills in a risk-free environment. They also have the potential to be individualized to provide for culturally competent prevention efforts (Asher BlackDeer & Patterson Silver Wolf, 2020; Bartgis & Albright, 2016). The use of Kognito's online simulations is recommended to prepare school staff to effectively identify and refer at-risk youth before suicidal behavior occurs (Brann et al., 2021; Torok et al., 2019). Teachers should not be fearful or reluctant to discuss concerns with at-risk students and parents. It is recommended that school staff are at the center of school-based mental health services, programs, and whole-school changes since teachers are experts in what works best for their classrooms, school, and students (Shelemy et al., 2019). However, gatekeeper training is of limited use without protocols for keeping at-risk students safe and knowledge of resources to help those at risk find professional help. Teachers should never be expected to fill the role of mental health therapists or school counselors (Brann et al., 2021).

Conclusion

Addressing suicide among the nation's youth is imperative with suicidal ideation, attempt, and completion rates higher than ever (CDC, 2020b). Youth's limited help-

seeking behavior highlights the importance of enhancing risk identification capacity among those who spend significant amounts of time with them and are well-suited to intervene in crisis situations (Torok et al., 2019). One caring adult is the single most protective factor for youth suicide (SAMHSA, 2015; Sieving et al., 2017). Schools are a critical setting for supporting the healthy development of youth as school can be a source of resiliency and support for students who are struggling (Robinson-Link et al., 2019). However, studies found many teachers do not know how to properly identify at-risk youth or how to engage youth in conversations about their suicide risk (Robinson-Link et al., 2019; Shelemy et al., 2019). Incorporating Kognito gatekeeper training and a school-based suicide prevention protocol into school districts has shown promise in increasing the number of influential gatekeepers trained to take action and effectively intercede on behalf of at-risk youth before it is too late.

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Appendix A

Evidence Table

Author(s) & Date	Study Design	Participants, Sample Size, & Setting	Interven-tion(s)	Measure-ment	Data Analysis	Results / Recommendations for Practice	Comments (Strengths & Weaknesses)	Evidence Level, Quality
Albright, G., Adam, C., Serri, D., Bleeker, S., & Goldman, R. (2016a)	Int. review	6 studies	Individuals who have completed Kognito simulations	N/A	N/A	Positive results related to generalizability, efficiency, skill building, self-efficacy, satisfaction, engagement, user behavior change, and users changing behaviors of others	Strengths: Description/ advantages of Kognito Weaknesses: Doesn't focus solely on school setting, authors are members or employees of Kognito	VB
Albright, G. L., Davidson, J., Goldman, R., Shockley, K. M., & Timmons-Mitchell, J. (2016b)	Quasi-exp. researc h study	Faculty, staff, and students (8,657)	One of five different online gatekeeper trainings suited to participant (university, high school, middle school, veteran,	GBS	ANOVA, *F* test, Tukey's post-hoc, omega square, multiple factor models, x^2, CFI, TLI, RMSEA, linear regression, Cronbach's *a*	CFA findings found GBS measures three components of suicide prevention behavior (preparedness, likelihood, self-efficacy); best fit is three-factor model; high Cronbach's *a* for all 11 items; measures probability	Strengths: Sample size, data analysis Weaknesses: Authors have ties to Kognito	IIB

			university student) – pre-, post-, and 3-month follow-up surveys			of engaging in wanted behavior		
Asher BlackDeer, A., & Patterson Silver Wolf, D. A. (2020)	Syst. review, peer reviewed articles	4 databases searched, mental health interventions for AI/AN population – 9 articles used	Mental health interventions for American Indian youth	N/A	Evidence-based practices narrowed down by search criteria, quorum flowchart included	9 evidence-based interventions – target combination of school-based services, cultural adaptations, culture as treatment, and community involvement	Strengths: Data on vulnerable/high risk population Weaknesses: Kognito interventions but not specifically *At-Risk*	IIB
Bartgis, J., & Albright, G. (2016)	Quasi-exp. research study	AI/AN students, teachers, and faculty (9,000)	Completed 1 of 4 of Kognito's GKT simulations – pre-, post-, and 3-month follow-up surveys	GBS	ANOVA, Bonferroni's correction	Significant increases in self-identified gatekeeper attitudes to engage in helping behaviors from pre-training to 3-month follow-up; gatekeepers should refresh skills to maintain preparedness	Strengths: Vulnerable population (AI/AN) Weaknesses: Includes students	IIA
Black, M. H., Scott, M., Baker-Young, E.,	Int. review	27 studies	Suicide prevention programs for post-	N/A	4 electronic databases searched,	Three main types of programs (gatekeeper training, student, other); main topic	Strengths: Synopsis of themes, tables	VB

Thompson, C., McGarry, S., Hayden-Evans, M., Snyman, Z., Zimmermann, F., Kacic, V., Falkmer, T., Romanos, M., Bölte, S., Girdler, S., & Milbourn, B. (2021)			secondary students		appraisal included	themes found included suicide literacy, stigma/attitudes, seeking help, & providing help; findings largely supported effectiveness of gatekeeper training	Weaknesses: College setting	
Bradley, E. G., & Kendall, B. (2019)	Quasi-exp. research study	Students in a Masters of Arts in Teaching program in NY (20)	Kognito At-Risk for Middle School Educators – pre- and post-training surveys	GBS	Paired sample t test, descriptive statistics	Significant improvements in likelihood, confidence, and competence in approaching and referring at-risk students, recommend training to colleagues	Strengths: Included qualitative analysis Weaknesses: Small sample size	IIC
Brann, K. L., Baker, D., Smith-Millman, M. K.,	Meta-analysis	5 databases searched – 27 studies	School-based suicide prevention programs	N/A	Random effects model, maximum likelihood estimation	Suicide prevention programs have largest impact on suicide awareness and helping skills	Strengths: Data analysis, school setting Weaknesses:	IIA

Watt, S. J., DiOrio, C. (2021)					procedure, mean, standard deviation, variance	compared to suicide behavior, psychological wellness, and psychological distress		
Godoy Garraza, L., Kuiper, N., Cross, W. F., Hicks, B., & Walrath, C. (2021)	RCT	Adults who have participated in youth GKT (113)	Random assignment to role-play or online booster sessions after completion of QPR training – baseline, 3-month, and 6-month follow-up	TUPS	Linear regression	Active learning strategies can enhance effectiveness of GKT	Strengths: Randomization Weaknesses: Lost 494 participants to follow-up, QPR	IB
Long, M. W., Albright, G., McMillan, J., Shockley, K. M., & Acosta Price, O. (2018)	RCT	Elementary school teachers (18,896)	Kognito At-Risk for Elementary School Educators – assigned to wait-list control or interventio n	Modified GBS	Multivariate analysis, Hotelling's T^2, independent sample t tests, paired-sample t tests, 2-way ANOVA	Significant improvements in preparedness, likelihood, and self-efficacy in intervention group compared to control, increased self-reported teacher/parent conversations	Strengths: Large sample size, control group, data analysis Weaknesses:	IA
Morton, M., Wang, S., Tse, K.,	Syst. review	17 studies	Studies on GKT programs	N/A	Databases searched using	Majority of studies found improvements in knowledge, self-	Strengths: PRISMA flowchart	IIIB

Chung, C., Bergmans, Y., Ceniti, A., Flam, S., Johannes, R., Schade, K., Terah, F., & Rizvi, S. (2021)					PRISMA guidelines	efficacy, & gatekeeper-related skills; education + role-playing let to sustained increases in knowledge	included, detailed evaluation of each program Weaknesses: Focus on family and friends	
Rein, B. A., McNeil, D. W., Hayes, A. R., Hawkins, T. A., Ng, H. M., & Yura, C. A. (2018)	Quasi-exp. research study	University students, faculty, and staff (2,727)	Kognito modules – pre- and post-surveys	GBS	Three-way ANOVAs, Tukey's HSD	Improvement in preparedness, likelihood, and self-efficacy	Strengths: Sample size Weaknesses: College setting, only pre- and post-training assessments (no follow-up)	IIB
Robinson-Link, N., Hoover, S., Bernstein, L., Lever, N., Maton, K., & Wilcox, H. (2019)	Quasi-exp. research study	K-12 teachers in 131 different Maryland schools from 2014-2017 (781)	Kognito's At-Risk for Educators – baseline, post-, and 3-month post-training surveys	GBS	One-way repeated measures ANCOVAs, mean differences, Bonferroni pairwise comparisons	Increase in beliefs and behavioral intentions following training but not to changes in number of students approached and referred	Strengths: K-12 teachers, data analysis Weaknesses:	IIB
Shelemy, L., Harvey, K., &	Qual. single	Qualitative analysis with 9 focus	N/A	Interviews	Focus groups were recorded and	Four themes: identifying and supporting rather than	Strengths: Care taken with	IIIB

Waite, P. (2019)	researc h study	groups across 9 schools in the UK (49)			transcribed, themes identified	solving, the need for training that has a real-world application, the need for training to be engaging and active, changes that are needed outside classroom	interview procedures Weaknesses: Done in UK	
Singer, J. B., Erbacher, T. A., & Rosen, P. (2019)	Consen sus / positio n stateme nt	Review of best practice approaches for school-based suicide prevention	N/A	N/A	Search of electronic databases (PsycINFO, PubMed); compared programs to best practice registries from SAMHSA & SPRC	Use a developmental public health approach; 3 tiers (universal, selected, indicated)	Strengths: Findings compared to best practice registries Weaknesses:	IVB
Smith-Millman, M., Bernstein, L., Link, N., Hoover, S., & Lever, N. (2020)	Quasi-exp. researc h study	170 college students, 140 college staff	Kognito modules – pre-, post-, and 3-month follow-up assessment s	GBS	Repeated measures ANOVAs, Tukey B post hoc analyses, linear regressions	Improvements in preparedness, likelihood, and self-efficacy	Strengths: Data analysis, GBS Weaknesses: College faculty and students	IIB
Sylvara, A. L., & Mandracch	Qual. study	College professors (507)	Survey regarding self-efficacy of	Modified GKT scale	*T* tests	Participants that received GKT were more confident in identifying and	Strengths: Weaknesses: Didn't	IIIB

ia, J. T. (2019)			intervening and preventing suicide			assisting at-risk students	specifically use GBS or Kognito	
Timmons-Mitchell, J., Albright, G., Shockley, K., & Cho, S. (2019)	Quasi-exp. research study	Middle school educators (33,703)	Kognito's At-Risk for Middle School Educators – baseline, post-, and 3-month post-training surveys	GBS	Hotelling's T^2 test, paired sample t-tests, Cohen's dz, ANOVA, Bonferroni-corrected post hoc	Statistically significant increases in gatekeeper attitudes from pre- to post- to follow-up; statistically significant increases in number of students identified as being in psychological distress, approached to discuss concern, and referred to support services	Strengths: Focus on educators, data analysis, large sample size, 3-month follow-up Weaknesses:	IIA
Torok, M., Calear, A. L., Smart, A., Nicolopoulos, A., & Wong, Q. (2019)	Syst. review	13 studies	Studies including gatekeeper training programs involving teachers and parents	N/A	Search of electronic databases, PRISMA guidelines used	Improvements in suicide literacy outcomes; no improvements in identification and referral behaviors	Strengths: Data analysis Weaknesses: Australia setting, Kognito not included	IIIA

*GBS: Gatekeeper Behavior Scale, GKT: gatekeeper training, FFSI: family and friends of suicidal individuals, RCT: randomized control trial, AI: American Indian, AN: Alaskan Native, UK: United Kingdom, x^2: chi-squared test: CFI: comparative fit index, TLI: Tucker-Lewis index, RMSEA: root mean square error of approximation; HSD: Honestly Significant Difference; QPR: question, persuade, refer; TUPS: Training Utilization and Preservation Survey

Appendix B

JHNEBP Model

	Evidence Level	Types of Evidence
Research Evidence (Appendix E)	Level I	• Experimental study, randomized controlled trial (RCT) • Explanatory mixed methods design that includes only a Level I quaNtitative study • Systematic review of RCTs, with or without meta-analysis
	Level II	• Quasi-experimental study • Explanatory mixed methods design that includes only a Level II quaNtitative study • Systematic review of a combination of RCTs and quasi-experimental studies, or quasi-experimental studies only, with or without meta-analysis
	Level III	• Nonexperimental study • Systematic review of a combination of RCTs, quasi-experimental and nonexperimental studies, or nonexperimental studies only, with or without meta-analysis. • Exploratory, convergent, or multiphasic mixed methods studies • Explanatory mixed methods design that includes only a Level III quaNtitative study • QuaLitative study • Systematic review of quaLitative studies with or without meta-synthesis
Nonresearch Evidence (Appendix F)	Level IV	Opinion of respected authorities and/or nationally recognized expert committees or consensus panels based on scientific evidence. Includes: • Clinical practice guidelines • Consensus panels/position statements
	Level V	Based on experiential and non-research evidence. Includes: • Scoping reviews • Integrative reviews • Literature reviews • Quality improvement, program or financial evaluation • Case reports • Opinion of nationally recognized expert(s) based on experiential evidence

Dang, D., Dearholt, S., Bissett, K., Ascenzi, J., & Whalen, M. (2022). *Johns Hopkins evidence-based practice for nurses and healthcare professionals: Model and guidelines.* (4th ed.). Sigma Theta Tau International.

Appendix C

Levels of Evidence

Level of Evidence		Grade	
I	2	A	5
II	9	B	12
III	4	C	1
IV	1		
V	2		

Appendix D

Permission for Use

JOHNS HOPKINS EBP MODEL AND TOOLS- PERMISSION

Thank you for your submission. We are happy to give you permission to use the Johns Hopkins Evidence-Based Practice model and tools in adherence of our legal terms noted below:

- You may not modify the model or the tools without written approval from Johns Hopkins.
- All reference to source forms should include "©The Johns Hopkins Hospital/The Johns Hopkins University."
- The tools may not be used for commercial purposes without special permission.

If interested in commercial use or discussing changes to the tool, please email ijhn@jhmi.edu.

Appendix E

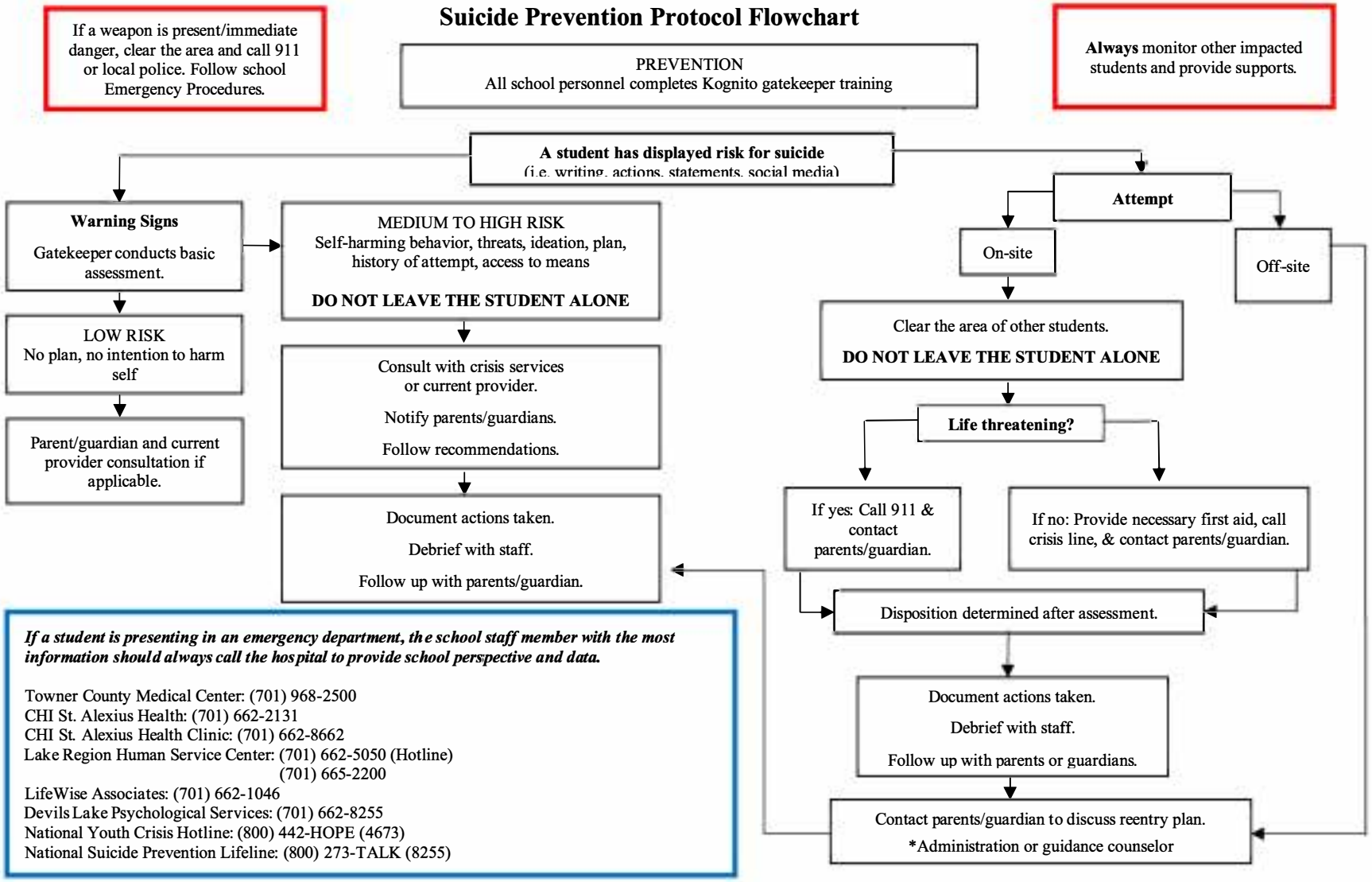
Gatekeeper Behavior Scale

Subscale	Number	Item	Response Scale
	How would you rate your preparedness to:		
Preparedness	**1**	Recognize when a student's behavior is a sign of psychological distress	1 - Very Low 2 - Low 3 - Medium 4 - High 5 - Very High
	2	Recognize when a student's physical appearance is a sign of psychological distress	
	3	Discuss with a student your concern about the signs of psychological distress they are exhibiting	
	4	Motivate students exhibiting signs of psychological stress to seek help	
	5	Recommend mental health support services (such as the counseling center) to a student exhibiting signs of psychological distress	
Likelihood	**6**	How likely are you to discuss your concerns with a student exhibiting signs of psychological distress?	1 - Very Unlikely 2 - Unlikely 3 - Likely 4 - Very Likely
	7	How likely are you to recommend mental health/ support services (such as the counseling center) to a student exhibiting signs of psychological distress?	
	Please rate how much you agree/disagree with the following statements:		
Self-Efficacy	**8**	I feel confident in my ability to discuss my concern with a student exhibiting signs of psychological distress	1 - Strongly Disagree 2 - Disagree 3 - Agree 4 - Strongly Agree
	9	I feel confident in my ability to recommend mental health support services to a student exhibiting signs of psychological distress	
	10	I feel confident that I know where to refer a student for mental health support	
	11	I feel confident in my ability to help a suicidal student seek help	

Albright, G. L., Davidson, J., Goldman, R., Shockley, K. M., & Timmons-Mitchell, J. (2016b). Development and validation of the Gatekeeper Behavior Scale. *Crisis, 37*(4), 271-280. https://doi.org/10.1027/0227-5910/a000382

Appendix F

Suicide Prevention Protocol Flowchart



Implementation of a Suicide Prevention Program in a Rural School: Methodology

BY

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A paper submitted in partial fulfillment of the requirements for the degree

Doctor of Nursing Practice

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Abstract

Background/Purpose: Addressing suicide rates in America's youth is critical. Suicide is the second leading cause of death among 10-24-year-old individuals. Elementary, middle, and high schools can play an essential role in suicide prevention through the implementation of gatekeeper training programs for teachers and a standardized school suicide prevention program.

Methods: A suicide prevention program including an online Kognito gatekeeper training and a 2-hour workshop was implemented in a rural Midwest school. The Gatekeeper Behavior Scale was used to measure the impact of training using a pre/post-test approach. The number of referrals to primary care providers or specialized mental health services was recorded at pre-project implementation and 6-month follow-up.

Results: Repeated measures analysis of variance (ANOVA) determined mean gatekeeper intervention behaviors of preparedness ($p < .001$), likelihood ($p < .017$), and self-efficacy ($p < .005$) differed significantly across three time points for nine of the eleven survey questions. The number of students approached to discuss concerns and referred to mental health services increased.

Discussion: Participants' preparedness, likelihood, and confidence in recognizing and intervening with at-risk youth improved from baseline to 6-month follow-up and referrals increased.

Implications for Practice: Suicide prevention programs in schools may fill a mental healthcare gap for the underserved rural youth and create a positive school climate that mitigates suicide risk.

Keywords: gatekeeper, Kognito, school, suicide

Implementation of a Suicide Prevention Program in a Rural School

Suicide is a major public health issue and has become a growing concern among youth in the last decade. Administrators, teachers, coaches, and other school personnel who interact with students can play an important role in keeping students safe. There are a number of risk factors (i.e. mental health disorders, drug and alcohol abuse, disruptive and unsupportive family background) associated with suicidal behavior that can be detected by trained "gatekeepers" in schools where youth spend a significant portion of their time. Gatekeepers can include anyone who is strategically positioned to recognize and refer someone at risk of suicide to primary care providers or mental health services. Incorporating suicide prevention programs through gatekeeper training in kindergarten through 12th grade (K-12) school districts can have a major effect on the mental health of youth (Brann et al., 2021).

Background/Purpose

Schools are in a unique position to offer intervention opportunities for at-risk youth (American Foundation for Suicide Prevention, 2021; Robinson-Link et al., 2019). Evidence has shown that online gatekeeper training can improve gatekeeper behaviors by allowing participants to practice real-life skills in a safe environment (Albright et al., 2018; Long et al., 2018; Sylvara & Mandracchia, 2019). Kognito is an evidence-based platform that offers online gatekeeper training for K-12 teachers and support staff (Kognito, 2020). Kognito's training can be used to increase confidence and likelihood in identifying and referring at-risk youth before suicidal behavior occurs (Black et al., 2021; Rein et al., 2018; Robinson-Link et al., 2019; Smith-Millman et al., 2020).

Significance

Suicide is the second leading cause of death in Americans aged 10-24 years old, with rates increasing nearly 60 percent from 2007 to 2018 (Brann et al., 2021; Curtin, 2020; Rural Health Information Hub [RHIhub], 2019). Furthermore, there are approximately 50-100 youth suicide attempts for each suicide death. According to the United Health Foundation (2021), four out of five suicide deaths are preceded by warning signs; however, youth are notoriously poor help seekers, with only one-third of those with suicidal thoughts actively seeking help (Torok et al., 2019). Rural students are twice as likely to commit suicide than their urban counterparts, while Native American students have four times the risk (Asher BlackDeer & Patterson Silver Wolf, 2020; Centers for Disease Control & Prevention [CDC], 2020b; RHIhub, 2019). The increased risk of suicide and limited resources for prevention and treatment are especially troubling for rural and Native American youth (Bartgis & Albright, 2016; RHIhub, 2019).

PICOT Question

The PICOT question guiding this DNP (Doctor of Nursing) Project is as follows: In K-12 administration, teachers, and staff at a rural Midwest school (P), how does the implementation of an evidence-based suicide prevention program (I) compared to no evidence-based program (C) affect participants' preparedness, likelihood, and self-efficacy in approaching potentially suicidal youth and the number of mental health referrals made (O) within 6 months (T)?

Evidence Findings

Gatekeeper training is one of the most effective strategies in preventing suicide (Morton et al., 2021). Gatekeepers are educated on suicide risk factors and behavior

warning signs so they can properly manage at-risk individuals and provide them with resources or refer them to professional help (Morton et al., 2021). Schools are an opportune environment to offer intervention opportunities such as gatekeeper training for suicide prevention, especially in rural areas with poor access to mental health services, limited school counselors, and limited knowledge of school suicide prevention programs and protocols (Brann et al., 2021; Long et al., 2018).

Gatekeeper training may increase knowledge of suicide warning signs and behaviors, expand communication strategies for discussing suicide with those at-risk, and optimize the ability to refer at-risk youth to services (Albright et al., 2016a; Robinson-Link et al., 2019). Online training programs offer a flexible, risk-free environment to train a large number of individuals in a cost-effective and timely manner (Bartgis & Albright, 2016; Robinson-Link et al., 2019; Smith-Millman et al., 2020).

Kognito's online simulations have been found to improve and sustain teachers' attitudes and behaviors needed as effective gatekeepers in a number of studies (Albright et al., 2016a; Bartgis & Albright, 2016; Black et al., 2021; Long et al., 2018; Rein et al., 2018; Robinson-Link et al., 2019; Smith-Millman et al., 2020; Timmons-Mitchell et al., 2019). Kognito's *At-Risk* training increased preparedness, likelihood, and self-efficacy in detecting, intervening, and referring at-risk youth from baseline to 3-month follow-up in numerous studies as well (Albright et al., 2016a; Black et al., 2021; Rein et al., 2018; Robinson-Link et al., 2019; Smith-Millman et al., 2020; Timmons-Mitchell et al., 2019).

Suicide prevention must be implemented as a comprehensive approach. Protocols for keeping at-risk students safe along with knowledge of professional mental health resources are critical. The Substance Abuse and Mental Health Service's (SAMHSA)

High School Suicide Toolkit has specific evidence-based tools and programs to assist schools in the design and implementation of suicide prevention programs (SAMHSA, 2015). The National Alliance on Mental Illness (NAMI) Maine has several resources to help schools develop individualized suicide prevention protocols (NAMI Maine, 2021).

Recommendations for Practice

Online simulations allow participants to practice real-life skills in a safe environment. The use of Kognito's online simulations is recommended to prepare teachers and school support staff to effectively identify and refer at-risk youth before suicidal behavior occurs (Brann et al., 2021; Torok et al., 2019). However, protocols must be in place to support teachers and school support staff in the suicide prevention process. A thorough understanding of risk factors, suicidal behaviors, and communication strategies are necessary aspects of suicide prevention in the school setting. The more faculty trained as gatekeepers the better, as training increases the likelihood of identifying and helping at-risk students (Sylvara & Mandracchia, 2019).

Gaps

Limited recent published studies that focused on school-based suicide prevention programs in rural schools were available. Evidence that focused on the effectiveness of toolkits or protocols for school-based suicide prevention was also lacking. Another identified gap was the lack of randomized control trials that examined the impact on long-term health outcomes of those students approached by Kognito trained individuals as the longest follow-up time frame was 6 months.

Methods

Framework, Theories, and Models

The Johns Hopkins Nursing Evidence-based Practice (JHNEBP) Model and Guidelines was selected to guide this DNP Project (Dang & Dearholt, 2022). The theoretical framework utilized was Orlando's Nursing Process Discipline Theory. Orlando's theory emphasizes the importance of the nurse-patient interaction and is instrumental in assessing individuals for suicidal ideation (Orlando, 1961). Lewin's Change Theory was the change framework guiding this project. Lewin's theory is a simplistic three stage change model that includes unfreezing, change, and refreezing (Lewin, 1951).

Setting

The setting for this project was a rural Midwestern county school. The county has an estimated population of 2,189, with 92.9% of the population being Caucasian, followed by 5.1% Native American, and 2.7% Hispanic (United States Census Bureau, 2020). There are approximately 300 students in grades K-12. According to the area's 2019 High School Youth Risk Behavior Survey (YRBS), 21.6% of high school students had seriously considered attempting suicide, 20.0% had made a suicide plan, and 16.4% had attempted suicide at least once over a 12-month period. Middle school results found 29.5% of area students had seriously considered suicide, 19.8% had devised a plan, and 16.4% had attempted to commit suicide (CDC, 2020a). The 2009 YRBS found 12.4% of high school students had seriously considered a suicide attempt, 10.5% had made a suicide plan, and 5.7% had actually attempted suicide (CDC, 2010).

The school at which this project occurred did not have any suicide prevention programs in place prior to this DNP Project. All elementary, middle, and high school teachers and administrators are required to have 8 hours of youth mental health training every 2 years. Teachers and school support staff were encouraged to participate in the training and had the opportunity to use the hours to meet their Youth Behavioral Health Professional Development Requirements for the state.

Sample

Teachers comprised 81% of the participants, 13% were administration personnel, and 6% paraprofessionals. Of the participants, 75% reported their gender as female and 25% as male. One participant declined to state their race, and the other participants reported their race as White. Years of experience teaching ranged from 2 to 38 years with an average of 13 years. Of the participating staff, 63% reported working solely in the elementary setting and 25% work solely in the high school setting. The percentage of staff that reported working in both the junior/middle school and high school settings was 12%. Of the participants, 19% reported not having any previous mental health or suicide prevention training.

Intervention Tools

The DNP Project Manager integrated best practices to build a suicide prevention program that included Kognito simulations, a face-to-face workshop, and a school intervention flowchart. The DNP Project Manager completed the Kognito simulations and served as a support in helping participants navigate the training. The DNP Project Manager led the face-to-face workshop following Kognito online training. The school

intervention flowchart was adapted from NAMI Maine's flowchart and SAMHSA's toolkit.

Kognito

Kognito is a health simulation company with evidence-based simulations that build a variety of competencies and shape attitudes through role-play conversations with virtual individuals (Kognito, 2020). Education was completed using Kognito's online *At-Risk for Educators* and *Trauma-Informed Practices for K12 Schools* simulations. The *At-Risk* series had three levels including elementary, middle, and high school. Participants interacted with fully animated at-risk students, received instant feedback based on what they said, and had the option to undo decisions and explore different conversation options. Personalized feedback was given at the completion of the simulations (Kognito, 2020). Workshop facilitator guides and presentations by Kognito were adapted for use during the workshop. Permission was not required for use of the guides or presentations and adaptation was recommended to best fit school districts and their resources. Refer to Appendix C for the Kognito Workshop Facilitator Guide and Appendix D for the Kognito Workshop Presentation adapted from the elementary, middle school, and high school presentations.

Toolkits & Protocols

There are numerous school district and state specific toolkits and protocols in the literature. Model policies that align with best practice recommendations give educators and school administrators a comprehensive way to implement suicide prevention plans in their communities (SAMHSA, 2015). SAMHSA's toolkit, Preventing Suicide: A Toolkit for High Schools, incorporates evidence-based tools and programs to help schools design

and implement strategies specific to their districts to prevent suicide and promote behavioral health. This toolkit was chosen because it addresses how to assess the school's ability to prevent suicide, understand strategies that help at-risk students, identify effective evidence-based programs specific for the district, and integrate suicide prevention into activities that fulfill other aspects such as preventing substance abuse (SAMHSA, 2015). The SAMHSA toolkit is 230 pages long and thus was not included in an appendix; it is available online at no cost.

NAMI Maine (2021) has a toolkit and example flowchart for prevention, intervention, and post-intervention (see Appendix E). NAMI Maine's flowchart was chosen because it is evidence-based and detailed yet easy to follow. A suicide prevention flowchart was developed by the DNP Project Manager using NAMI Maine's flowchart and the SAMSHA suicide prevention toolkit. See Appendix F for the School Prevention Protocol Flowchart adapted from the SAMHSA (2015) and NAMI Maine (2021) resources.

Gatekeeper Behavior Scale

The Gatekeeper Behavior Scale (GBS) is the standardized assessment tool that was used to assess the impact of gatekeeper training on the behavior of the gatekeepers. The GBS measures attitudes and intentions that have been shown to be related to changes in behaviors and includes three subscales: preparedness, likelihood, and self-efficacy to engage (Long et al., 2018). Albright et al. (2016b) found the GBS to have a high internal consistency and reliability with a Cronbach's alpha (α) of .93 and .94, respectively. All 11 individual items correlated with the three subscales and behavioral composite ($r \geq .84$, $p < .001$) in factor loadings. Therefore, the higher the GBS score, the more likely

participants are to engage in gatekeeper intervention behaviors. Criterion-related validity for likelihood to discuss concerns post-training was related to approaching at-risk students ($r = .219$, $p < .001$) and the number of students referred correlated with likelihood to refer ($r = .235$, $p < .001$) (Albright et al., 2016b). See Appendices G, H, and I for detailed versions of the GBS. The GBS is available for use without permission.

Workshop

Effective professional development incorporates elements such as focused content, active learning, and feedback (Godoy Garraza et al., 2021). Kognito may be offered as stand-alone training or can be used in conjunction with an online or face-to-face workshop. The blended-learning option as a 2-hour face-to-face workshop reinforces learning and provides an opportunity to discuss school-specific policies and resources (Kognito, 2020). Kognito's ready-to-use workshop facilitator guides and presentations were acquired from a Kognito representative and were adapted for use during the workshop. There was no fee associated with use of the guides or presentations. Permission was not required for use or adaptation of the guides or presentations as personalization is encouraged by Kognito.

Referral Tracking

Gatekeeper intervention behaviors including referrals of students were tracked. Participants were asked to estimate over the 2021-2022 academic year the number of students they had: 1) been concerned about due to psychological distress, 2) approached to discuss their concerns with, or 3) referred to a primary care provider or mental health services. Behaviors were assessed in the pre-intervention survey and at 6-month follow-up.

Project Procedure

The DNP Project Manager communicated with the guidance counselor and high school principal who indicated staff have required professional development hours and mental health and suicide prevention would be a good topic. See Appendix B for school approval.

Participation in the Kognito simulations was strongly encouraged for all teachers and school support staff. Participation in the data collection process was voluntary. First, participants were asked to complete the demographic survey. Demographic data collected included age, gender, race, number of years in education, primary job role, grouped grade level(s) the participants work with, and if participants have had any previous mental health training. Grade levels were grouped to allow for anonymity. The demographic survey was included with the pre-intervention GBS survey. See Appendix J for the demographic survey.

Participants then created a Kognito account and enrolled in the appropriate *At-Risk* and *Trauma-Informed* modules. See Appendix K for a handout of the enrollment process. After enrollment, participants had 1 week to complete the two self-paced modules. Each module took approximately 30-45 minutes to complete. Participants were advised to complete the Kognito simulations individually and keep all aspects of the simulation experience confidential for the benefit of themselves, coworkers, and students. The DNP Project Manager was available as a support in case any questions emerged.

The face-to-face workshop was conducted during the school's final professional development day. The guidance counselor, administration, and teachers were required to attend. The DNP Project Manager led the workshop using the adapted Kognito workshop

facilitator guide and presentations. The workshop included a review of the simulations, role-play case scenarios, discussion of the school's current suicide prevention process, the new school intervention protocol, and main take-away points. The GBS survey was completed for the second time immediately following the workshop and again 6-months post-implementation. The 6-month follow-up survey included self-reported referrals. If an at-risk student was identified, staff were expected to approach the student and follow the school intervention protocol (Appendix F) based on whether the student was deemed to be in immediate danger or not.

Data Collection

Surveys were completed online utilizing QuestionPro. Surveys were coded by the participants for pre/post matching purposes with their middle initial and last four numbers of their cell number. Participants were informed their consent was implied by the completion of each survey item. The GBS survey was completed a total of three times for the project: once prior to implementation, again at the end of the face-to-face workshop, and a final time at 6 months post-intervention. Self-reported helping behaviors including referrals were recorded pre-intervention and at the 6-month follow-up. All items required numerical responses. Referrals were also self-reported to the guidance counselor and tallied by the DNP Project Manager.

Results

Thirty-four school personnel completed the suicide prevention training, pre-intervention survey, and attended the workshop, 28 participants completed the post-intervention survey, and 22 participants completed the 6-month follow-up survey. Sixteen of the 34 participants completed all three surveys.

A repeated-measures ANOVA determined that mean preparedness ($p < .001$), likelihood ($p < .017$), and self-efficacy scores differed significantly ($p < .005$) across three time points for nine of the 11 survey items. The two items that were not significant were Q1 ($p < .057$) and Q10 ($p < .074$). No significant correlations were found with participants' reported number of years in education and survey results.

Preparedness measures to recognize when a student's physical appearance is a sign of psychological distress ($p < .004$) and discuss concerns ($p < .001$), motivate at-risk students to seek help ($p < .001$), and recommend support services increased over time ($p < .001$). The greatest increase occurred immediately post-implementation. Likelihood to discuss concerns also increased over time ($p < .009$) with the greatest increase at post-implementation. Likelihood to recommend mental health services increased post-implementation but decreased from baseline at 6-month follow-up ($p < .025$). Self-efficacy measures of confidence in ability to discuss concerns ($p < .001$) and help a suicidal student seek ($p < .007$) help also increased. Again, the greatest increase was immediately post-intervention. The self-efficacy measure of confidence in ability to recommend services increased post-implementation but remained unchanged from baseline at 6-month follow-up ($p < .007$). Refer to Appendix L for data analysis.

Participants were asked to report the number of students 1) they were concerned about due to their psychological distress, 2) approached to discuss concerns, or 3) referred to mental health services or a primary care provider in the 6 months prior to implementation of the quality improvement project and at 6-month post-project implementation. The number of students participants were concerned about decreased, approached to discuss concerns increased, and referred to mental health services or a

primary care provider increased over the project time frame. Refer to Appendix M for results.

Ethical Considerations

The project was exempt from academic institutional review board (IRB) approval as it was deemed non-human subjects (see Appendix A). IRB approval was not required at the school in which the project took place. The DNP Project Manager was the only individual with access to the QuestionPro survey responses.

Discussion

The quality improvement project was effective in helping teachers and administration at a rural Midwest school identify and intervene early with at-risk students by increasing the number of at-risk students approached and the number of referrals to mental health support services over a 6-month timeframe. Timing of the project made for an unfortunate follow-up period as the summer months accounted for a significant portion of the 6-month timeframe. Ideally, referrals will further increase throughout the remainder of the school year due to this project. An unknown number of referrals were also not recorded as the identified student(s) had already been referred to support services.

Participants reported throughout the project that the suicide prevention program was effective in helping them recognize students in psychological distress and respond appropriately. Of the three domains, preparedness, likelihood, and self-efficacy, preparedness appeared to increase the most due to this quality improvement project. A significant increase was found for four of the five questions immediately post-intervention and remained overall improved from baseline at 6-month follow-up.

Therefore, training improved participants' perceived ability to recognize psychological distress, discuss concerns with students, motivate students to seek help, and recommend support services. Given the high rate of mental health conditions and suicide in youth and the limited number of them who actually receive treatment or seek help, increased preparedness is a big step in the right direction to improving suicide prevention efforts in rural schools with limited resources. Participants' likelihood to discuss concerns as well as their confidence in discussing concerns, referring to services, and actively helping a suicidal student also significantly improved immediately post-intervention and remained improved from baseline at 6-month follow-up. School environments that can foster a sense of interpersonal connectedness and encourage disclosure of concerns to supportive adults can serve as a protective function that mitigates suicide risk.

Implementation of the suicide prevention program had a significant effect on participants. Only two of the 11 survey questions were not found to have a significant difference over time. One survey item where significance was not realized was in participants' preparedness to recognize when a student's behavior is a sign of psychological distress. The identification of internalizing or externalizing behaviors associated with mental health issues or psychological distress may be unfamiliar for many school personnel. Behavior is a gray area as its interpretation is subjective and often based on a "gut feeling." Many school staff may have difficulty identifying students with internalizing behaviors of mental health issues as they do not exhibit as major incidents of disruptive behavior as externalizing behaviors often do (Marsh, 2016).

The other survey item where significance was not realized was in participants' confidence in knowing where to refer a student for mental health support. One of the

main goals of integrating the school-based suicide prevention protocol was to improve awareness and knowledge of the local resources available to help students. Ideally staff will continue to integrate the protocol into their suicide prevention efforts and further improve their knowledge of local mental health support and resources.

Overall, as a result of partaking in this quality improvement intervention, participants reported to the DNP Project Manager that they noted an increase in the number of students they have been concerned about, approached to discuss concerns, and referred as well as an increase in the number of conversations they have had about students they were concerned about with other teachers, staff, and/or administrators and about their protocol for suicide prevention in general. Participants reported the training was realistic and they could easily correlate each of the simulations with real-life students and scenarios they had in their school and classrooms. Many also mentioned they would recommend Kognito to colleagues and would complete the modules again for training purposes.

Implications for Practice

Impact on Organization

Suicide deaths typically prompt suicide prevention in schools (Singer et al., 2019). This DNP Project has implications for the school as well as for improving the quality of mental health care for the underserved rural youth. The suicide prevention program had a significant impact on the school and staff's ability to respond to students in distress and systematically provide needed support before suicidal behavior occurs. The more trained gatekeepers the school has, the increased likelihood of recognizing at-risk youth. The continuation of the suicide prevention program has the potential to create

a positive school climate that increases protective factors for youth to decrease their suicide risk. This training also gave rural teachers and staff the opportunity to gain new skills without leaving their communities.

Facility Support and Cost

The Department of Human Services' Behavioral Health Division has offered Kognito *At-Risk* training to all school personnel in the state at no-cost since October 2021. The county public health's Alcohol and Other Drugs grant was used to cover the costs of the *Trauma-Informed Practices* simulation for 34 participants. Participants used their personal or school computers to complete training, and a school projector/smart board was used for the workshop so no extra cost for technology was realized. The GBS surveys were online, and no other tools for this DNP Project were of any extra cost. Participants were credited with required mental health hours for their participation.

Recommendations for Further Projects and Sustainability

Key stakeholders reported interest in sustaining Kognito trainings and even implementing *At-Risk* simulations for students as many of them simply do not know how to respond to their classmates in distress. Kognito's online platforms make it simple for new staff to become trained gatekeepers and for retraining current staff. However, there is insufficient literature on long-term health outcomes associated with individuals who have been approached by Kognito trained gatekeepers. Further projects could perform a follow-up to determine project outcomes and effect on referrals. It would also be important to time the project more appropriately with the academic calendar as to not spend a significant portion of follow-up time over the summer months. Rigorous studies that compare the efficacy of different training approaches would also be helpful to

determine which approach is most promising regarding changes in desired health behaviors. Including a control group could also be considered.

Limitations

Limitations include a small sample size and the loss of participants to follow-up. Future research with a larger sample size and variation in school districts will need to be conducted to determine whether results of this project are directly related to the small, rural school or generalizable to a larger population.

Conclusion

The use of online suicide prevention initiatives may provide an opportunity for teachers and support staff to practice the skills necessary to care for youth in distress before having to do it "for real." Schools play an important role in combatting youth suicide. Incorporating a school-based suicide prevention program has the potential to improve teachers' ability to identify and intervene early with students experiencing psychological distress that could end in suicide. The number of referrals that will hopefully result can significantly improve numerous at-risk youth's quality of life and give back potential years lost if mental illness were to remain untreated into adulthood. Equipping caring adults with suicide prevention training is an invaluable resource for youth during their time at school.

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Appendix A

University IRB Approval

Appendix B

Facility Approval

DNP Project Stakeholder Agreement

I agree to serve as the DNP Project Stakeholder to the DNP student named in this agreement.

Name of Stakeholder:

Nancy Reiser

Signature of Stakeholder:

Name of DNP student:

Mackenzie Wieser

Signature of DNP student:

Date:

3-31-2022

Approved by Graduate Faculty 5.10.19; Updated 5.18.20

Appendix C

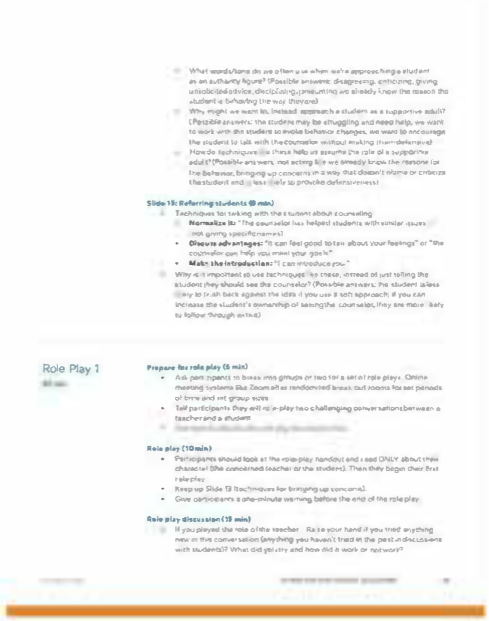
Kognito Workshop Facilitator Guide

Slide 12: Warning signs (10 min)

- "Remember the wave we saw in the picture at the beginning of the workshop? Often we don't know that wave is there. All we see are the student reactions to that wave. These are warning signs that tell you a child might be dealing with more under the surface than we realize."
- "Look for worrisome behavior or warning changes in behavior."
- Possible discussion questions:
  - What kinds of things do you think your students may struggle with emotionally? (Possible answers: managing school work, responsibilities at home, relationship stuff, parents fighting, divorced parents, mental disorders)
  - How do young people typically cope with these kinds of struggles? (Possible answers: they don't, they shut down, they probably don't do their work, they talk to an adult who can help)
  - Were there any signs that surprised you, or that you hadn't thought to take note of before playing through the simulation?
  - Why is it important for teachers to notice these things, reach out to the student, and possibly refer them for support? (Possible answers: build the student's resiliency by being another adult they know cares; educators in an ideal position to notice when a student needs help and connect them with the resources designed to help them; the earlier a child gets the help they need, the better their overall outcomes might be; students receiving needed support may save us all our time and attention in the classroom and cause less disruption)
  - Why do some students' warning signs not lead to appropriate referral by a teacher? (Possible answers: teachers may not realize the behavior is indicative of a deeper issue, or the student's behavior may not be a problem in the classroom)
  - How might identifying an at-risk student save you time in the long run? (Possible answers: the student could get the help they need to improve behavior in the long run; when you improve your relationship with the child their behavior may also improve)

Slide 13-15: Talking with students about your concerns (12 min)

- Review the four techniques for bringing up sensitive topics:
  - Use "I" statements with phrases like "I think," "I feel," and "it seems like."
  - Avoid negative labels and replace them with neutral phrases that avoid accusation.
  - Avoid exaggeration and use soft modifiers.
  - Be specific about what you've observed.
- Review these techniques for getting students to open up
  - Use open-ended questions that can't be answered with a simple "yes" or "no."
  - Reflect what you think the student is saying, thinking, or feeling.
  - Avoid disagreeing, criticizing, and giving advice.
- Possible discussion questions:
  - Which of these things do you already do when talking to students/caregivers? How are they helpful?
  - Which of these are new techniques you want to try in the future? Why?



- What words/tone do we often use when we're approaching a student as an authority figure? (Possible answers: disagreeing, criticizing, giving unsolicited advice, disciplining, presuming we already know the reason the student is behaving the way they are)
- Why might we want to, instead, approach a student as a supportive adult? (Possible answers: the student may be struggling and need help, we want to work with the student to evoke behavior changes, we want to encourage the student to talk with the counselor without making them defensive)
- How do techniques like these help us assume the role of a supportive adult? (Possible answers: not acting like we already know the reasons for the behavior, bringing up concerns in a way that doesn't shame or criticize the student and is less likely to provoke defensiveness)

Slide 16: Referring students (8 min)

- Techniques for talking with the student about counseling:
  - **Normalize it:** "The counselor has helped students with similar issues (not giving specific names)
  - **Discuss advantages:** "It can feel good to talk about your feelings" or "the counselor can help you meet your goals"
  - **Make the introduction:** "I can introduce you."
- Why is it important to use techniques like these, instead of just telling the student they should see the counselor? (Possible answers: the student is likely to push back against the idea if you use a soft approach; if you can increase the student's ownership of seeing the counselor, they are more likely to follow through on this)

Role Play 1

Prepare for role play (5 min)

- Ask participants to break into groups of two for a set of role plays. Online meeting systems like Zoom offer random breakout rooms for set periods of time and set group sizes.
- Tell participants they will role-play two challenging conversations between a teacher and a student.

Role play (10 min)

- Participants should look at the role-play handout and read ONLY about their character (the concerned teacher or the student). Then they begin their first role play.
- Keep up Slide 13 (techniques for bringing up concerns).
- Give participants a one-minute warning before the end of the role play.

Role play discussion (15 min)

- If you played the role of the teacher: Raise your hand if you tried anything new in the conversation (anything you haven't tried in the past in discussions with students)? What did you try and how did it work or not work?

- What did you learn about Tamina's emotional state and home life? What did you try and how did it work or not work?
- If you played the role of the student: What did your partner do in the conversation to make you feel comfortable and respected?
- How were the techniques for bringing up sensitive topics and getting a student to open up used? Alternatively, how could they have been used to make the conversation even better?
- Could Tamina be helped by a referral to a school mental health professional? (Yes, she seems to be under a lot of stress and may benefit from talking with a trained professional at school; it would also be helpful to talk with her parent about their observations.)
- What kinds of safety planning, if any, is necessary for conducting a conversation like this? (Possible answers: checking your emotions to put aside any unhelpful thoughts or presumptions you may have about the student or parent; considering how you might bring up the things you've noticed and what kind of language you will use)

15-Minute Break

Suicide

- Do they have the means to act on the plan?

02. Connect the student immediately and in person to a supportive counselor, staff member, local service provider, or crisis center.

"If you have questions on how to handle a particular situation and you cannot reach anyone in your school administration, you can call The National Suicide Prevention Lifeline at 1-800-273-TALK (8255) 24 hours a day, seven days a week."

Asking a student if they are considering suicide will not put the idea in the student's head.

Also, the way the question is asked makes a big difference in whether or not the student will give you a truthful answer.

- Not effective: "You're not thinking about suicide, are you?"
- Not effective: "You wouldn't do it yourself, I know you're smarter than that."
- Effective: "Are you considering suicide?"

Many students who are thinking about suicide will welcome the opportunity to talk about those thoughts if given a chance.

Get participants to turn to their role play partner, and take turns asking the question.

Slide 16: Suicide warning signs

- According to the CDC survey, 16% of high school students surveyed had seriously considered suicide, 13% had made a plan, and 8% had tried to take their own life in the past year.
- The presence of more than one of the following warning signs may increase a youth's risk for engaging in suicidal behaviors in the near future:
  - Talking about or making plans for suicide
  - Expressing hopelessness about the future
  - Displaying severe/overwhelming emotional pain or distress
  - Showing worrisome behavior or changes in behavior, such as:
    - Withdrawal from or changes in social connections/situation
    - Changes in sleep (too little or too much)
    - Anger or irritability that seems out of character or out of context
    - Recent increased agitation or inability

Slide 17: What to do if you suspect a student may be considering suicide

- "Suicide is often preventable. If you fear that a student is considering suicide talk to him or her immediately and be direct. Asking about suicide will not put the idea into a student's head."
- **01.** Gather as much information as the student is willing to share, such as:
  - Are they thinking about suicide?
  - Do they have a plan?
  - Do they intend to act on the plan?

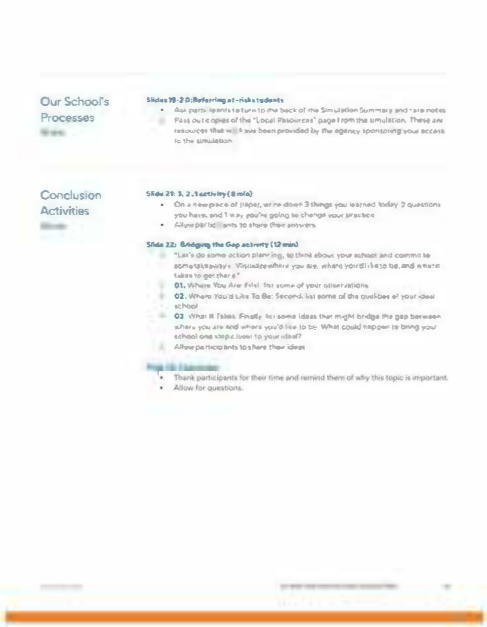
Role Play 2

Role play (10 min)

- New participants will switch roles. Whoever played the teacher before will now play the student.
- Ask participants to read Section B on the role play handout and begin their second role play.
- Keep up Slide 14 (techniques for getting students to open up).
- Give participants a one-minute warning before the end of the role play.

Role play discussion (15 min)

- If you played the role of the teacher: Raise your hand if you tried anything new in the conversation? What did you try and how did it work or not work?
- What did you learn about Dallas's emotional state?
- If you played the student: What did your partner do in this conversation to make you feel comfortable and respected?
- How do you think this conversation helped Dallas? Why was it helpful to talk with him yourself instead of asking him directly to the counselor? (He may feel shy and uncomfortable with the counselor whereas you already have a relationship with him, so he may be more willing to open up to you than the counselor; your earners attention may make him more comfortable with the idea of talking with a counselor.)
- **Reminders:** Never promise confidentiality to a student. If you do, you will have to break your promise when you pass along details to the counselor. Also, never leave a possibly suicidal student alone. Connect them immediately and in person with the counselor or other designated school personnel.



Our School's Processes

Slides 19-20: Referring at-risk students

- Ask participants to turn to the back of the Simulation Summary and take notes.
- Pass out copies of the "Local Resources" page from the simulation. These are resources that will have been provided by the agency sponsoring your access to the simulation.

Conclusion Activities

Slide 21: 3, 2, 1 activity (8 min)

- On a new piece of paper, write down 3 things you learned today, 2 questions you have, and 1 way you're going to change your practice.
- Allow participants to share their answers.

Slide 22: Bridging the Gap activity (12 min)

- "Let's do some action planning, to think about your school and commit to something specific. Visualize where you are, where you'd like to be, and what it takes to get there."
- 01. Where You Are Now: list some of your observations.
- 02. Where You'd Like To Be: Second, list some of the qualities of your ideal school.
- 03. What It Takes: Finally, list some ideas that might bridge the gap between where you are and where you'd like to be. What could happen to bring your school one step closer to your ideal?
- Allow participants to share their ideas.

- Thank participants for their time and remind them of why this topic is important.
- Allow for questions.

FOR HIGH SCHOOL EDUCATORS

Role-Play Scenarios

Role-Play Scenario A

Concerned Teacher

Read this if you are playing the teacher role.

During the first half of the [illegible] year, your student Tamina did well, making mostly Bs and Cs, and seemed happy and outgoing. She was popular and often told jokes in class that made the students (and you) laugh. However, since the winter break, there's been a change in her. She often comes to school in clothing that is stained and dirty. She sometimes smells of body odor. She's become more quiet and withdrawn. Now, instead of laughing with her friends, she's more likely to say things that hurt their feelings—in class or out. Ten days ago, she made a gaffe in which she made fun of her answer in class and told her she was stupid. You addressed Tamina's behavior at the time, letting her know that was not acceptable. Now you want to reach out to Tamina for a longer chat to see what's going on.

Tamina

Read this if you are playing the student role.

You are [illegible] one of four kids at home, being raised by your mom and grandma. Even though your mom is super busy, she used to make time to do things just with you in the evenings. You used to help her cook and do laundry, just to spend more time with her. She's really funny and she always makes you laugh.

Just after Christmas, your grandma had a stroke. Now she can't move on the left side of her face, and she has to stay in bed most of the time. Your mom has been in a bad mood ever since. She yells at you for no reason and never has time for you anymore. When she works late (about three times a week), she leaves your sister Amiraan charge. Amira graduated high school two years ago and now works part time at a clothing store. She bullies you and your brothers, often telling you you're ugly and dumb. You pair with things to go back to the way they used to be.

Sometimes you get so mad you don't know what to do. Two days ago, you made fun of Jasmine in class when she gave an incorrect answer. You told her she was dumb, which you believe is true. The other kids laughed. Your teacher didn't like it, but so what? When the other kids laugh because of something you said, it makes you feel important again. Like a million bucks.

Kognito

FOR HIGH SCHOOL EDUCATORS

Role-Play Scenarios

Role-Play Scenario B

Concerned Teacher

Read this if you are playing the teacher role.

Your student Dallas is very shy. He hardly ever speaks in class. He is a loner with few friends. He is a loner, and you've seen a few things that make you wonder if he is being bullied or shunned by other students. His reading comprehension and writing ability is low for his age. You worry that, if he doesn't improve quickly, he may fail your class and eventually end up dropping out of school.

Another student told you today she heard Dallas saying at lunch that he was going to hang himself. She said he sounded like he was half joking, half bragging. You speak to the school leader and the counselor. The counselor is asking for you to bring Dallas to her office. Before you do, you want to talk with him yourself to ask about his suicidal comments and introduce the idea of going to the counselor together.

Dallas

Read this if you are playing the student role.

Your mother left home when you were one, you don't remember her at all. Two years ago, your father died by suicide. Now you live with your grandparents, who are old and don't understand you. The way your dad died. Your grandpa watches TV all day and fusses about how your dad was a "coward." Your grandma doesn't talk about your dad but sometimes looks herself in her room to cry. Maybe if they didn't have to raise you, they wouldn't be reminded of their dead son all the time and they'd be happier.

School is no better. Your classmates all seem to have good families and more money. You've been near the bottom of your class ever since you can remember. In the past, you used to get bullied. Now, everyone just ignores you.

Your dad was really special. He knew all kinds of things. He loved doing crossword puzzles, watching documentaries, listening to records. And he could talk about anything. You must have taken after your mother. Maybe that's another reason Dad was so sad.

You're tired of making everyone unhappy, and you can't imagine a good future. Sometimes you think about hanging yourself with a piece of rope from your grandfather's workshop. You read how to make the knot online, and you've been practicing. It's been a secret mess of a fantasy than a plan. But today you talked about it at lunch. A group of students gathered around you to listen. They seemed excited, and it felt good to get that kind of attention.

Kognito

Stay Connected

Congratulations! You have completed the Kognito At-Risk for High School Educators Program. You and your school are creating a more positive climate for your community, and the entire Kognito staff is here to celebrate all of your successes! Please stay connected with us, we would love to hear from you.

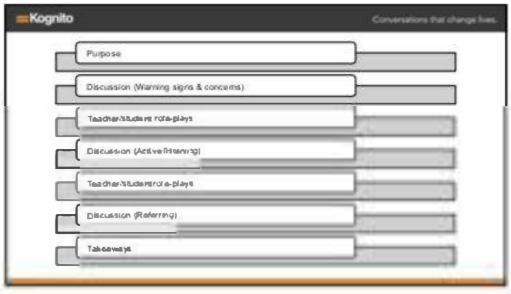
Customer Support
Phone: 866-449-8834
Email: Support@Kognito.com

Appendix D

Kognito Workshop Presentation

1

2



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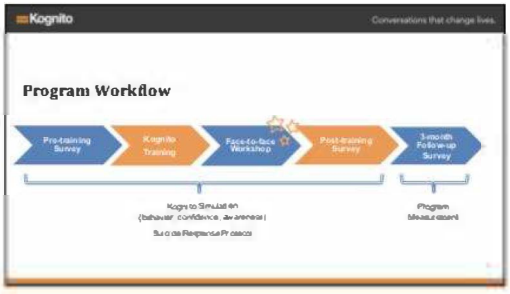

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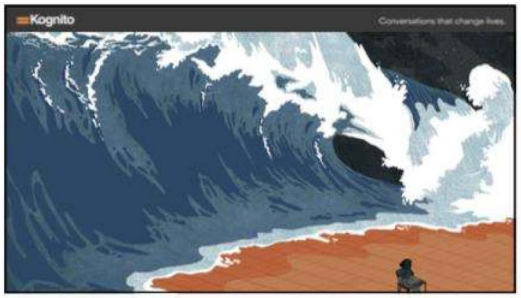
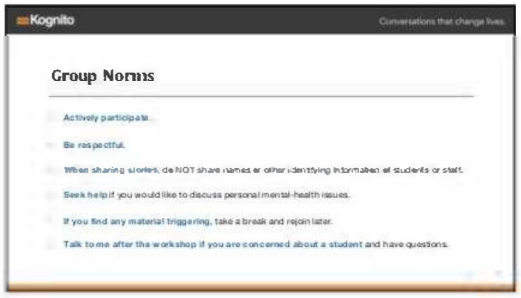

Kognito
Conversations that change lives.

5


Kognito
Conversations that change lives.
Group Norms
Actively participate.
Be respectful.
When sharing stories, do NOT share names or other identifying information of students or staff.
Seek help if you would like to discuss personal mental-health issues.
If you find any material triggering, take a break and rejoin later.
Talk to me after the workshop if you are concerned about a student and have questions.

6


SIMULATION
OVERVIEW

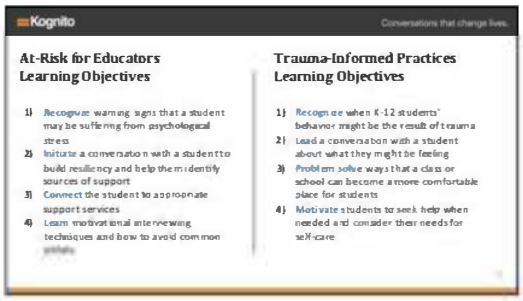
7


Kognito
Conversations that change lives.
What is Kognito?
Kognito is a health simulation company that comprises learning experts, designers, technologists and implementation professionals.
Our evidence-based simulations build a variety of competencies and shape attitudes through role-play conversations with virtual people.
Over 1+ million educators, students, and health care professionals have used Kognito simulations to change lives, including over 500,000 K-12 educators.
Our innovative approach has resulted in partnerships with government agencies and NGOs.
CDC

8


Kognito
Conversations that change lives.
How Does A Kognito Simulation Work?
User interacts with a fully animated at-risk virtual student
Navigates through the scenarios by selecting what to say to the virtual student
Receive instant feedback from the virtual coach and engagement meter
Can undo decisions and explore different conversation approaches
Receive personalized performance summary upon completion
Dialogue Options
Undo last selection
Coaching Feedback
Engagement Meter

9


Kognito
Conversations that change lives.
At-Risk for Educators Learning Objectives
1) Recognize warning signs that a student may be suffering from psychological stress
2) Initiate a conversation with a student to build resiliency and help them identify sources of support
3) Connect the student to appropriate support services
4) Learn motivational interviewing techniques and how to avoid common pitfalls
Trauma-Informed Practices Learning Objectives
1) Recognize when K-12 students' behavior might be the result of trauma
2) Lead a conversation with a student about what they might be feeling
3) Problem solve ways that a class or school can become a more comfortable place for students
4) Motivate students to seek help when needed and consider their needs for self-care

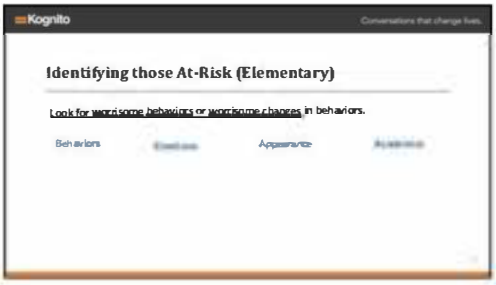
10


Kognito
Conversations that change lives.
High school
Elementary school

11


Kognito

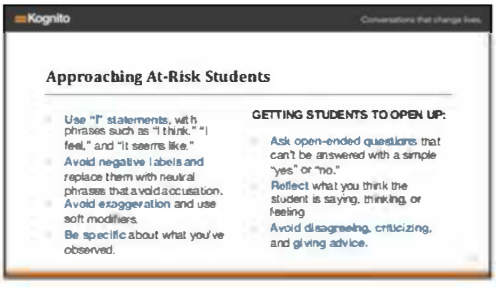
12


Kognito
Identifying those At-Risk (Elementary)
Look for worrisome behaviors or worrisome changes in behaviors.
Behaviors
Appearance

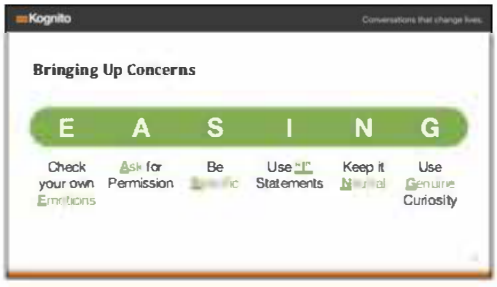
13


Kognito
Identifying those At-Risk (Middle & HS)
Look for worrisome behaviors or worrisome changes in behaviors.

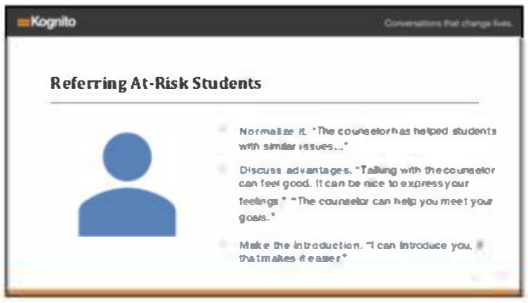
14


Kognito
Approaching At-Risk Students
Use "I" statements, with phrases such as "I think," "I feel," and "It seems like."
Avoid negative labels and replace them with neutral phrases that avoid accusation.
Avoid exaggeration and use soft modifiers.
Be specific about what you've observed.
GETTING STUDENTS TO OPEN UP:
Ask open-ended questions that can't be answered with a simple "yes" or "no."
Reflect what you think the student is saying, thinking, or feeling.
Avoid disagreeing, criticizing, and giving advice.

15


Kognito
Bringing Up Concerns
E A S I N G
Check your own Emotions
Ask for Permission
Be Specific
Use "I" Statements
Keep it Neutral
Use Genuine Curiosity

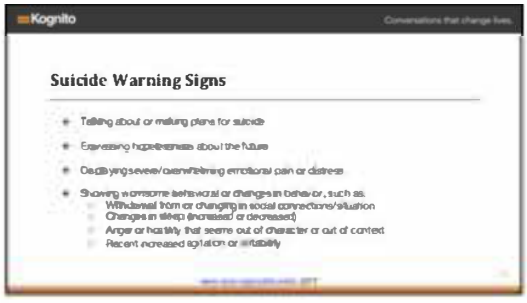
16


Kognito
Conversations that change lives.
Referring At-Risk Students
Normalize it. "The counselor has helped students with similar issues..."
Discuss advantages. "Talking with the counselor can feel good. It can be nice to express your feelings." "The counselor can help you meet your goals."
Make the introduction. "I can introduce you, if that makes it easier."

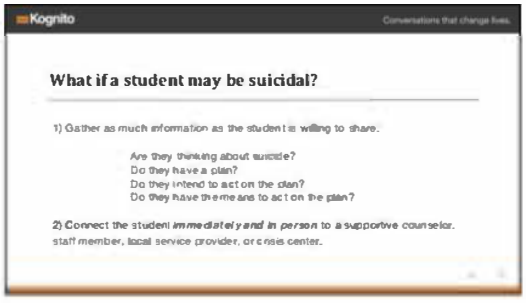
17


Kognito
Conversations that change lives.
ROLE PLAY

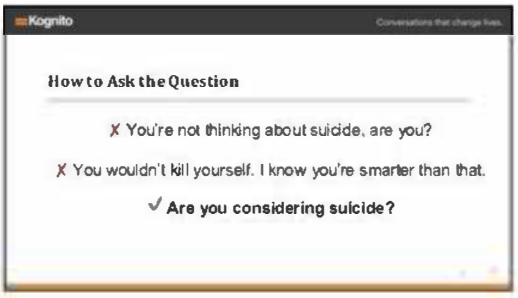
18


Kognito
Conversations that change lives.
Suicide Warning Signs
Talking about or making plans for suicide
Expressing hopelessness about the future
Displaying severe/overwhelming emotional pain or distress
Showing worrisome behavioral or changes in behavior, such as:
Withdrawal from or changing in social connections/situation
Changes in sleep (increased or decreased)
Anger or hostility that seems out of character or out of context
Recent increased agitation or irritability

19


Kognito
Conversations that change lives.
What if a student may be suicidal?
1) Gather as much information as the student is willing to share.
Are they thinking about suicide?
Do they have a plan?
Do they intend to act on the plan?
Do they have the means to act on the plan?
2) Connect the student immediately and in person to a supportive counselor, staff member, local service provider, or crisis center.

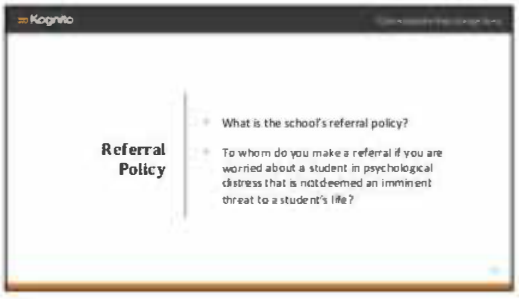
20


Kognito
Conversations that change lives.
How to Ask the Question
✗ You're not thinking about suicide, are you?
✗ You wouldn't kill yourself. I know you're smarter than that.
✓ Are you considering suicide?

21


Kognito
Conversations that change lives.
ROLE PLAY

22


Kognito
Referral Policy
What is the school's referral policy?
To whom do you make a referral if you are worried about a student in psychological distress that is not deemed an imminent threat to a student's life?

23


Kognito
Local Resources

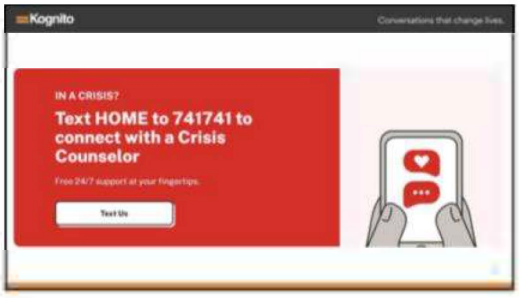
24


Kognito
Conversations that change lives.
YM
love is respect
DITCH THE LABEL
notok
MY LIFE IS WORTH LIVING
active minds
YOUTH SUICIDE WARNING SIGNS
THE TREVOR PROJECT
stopbullying.gov

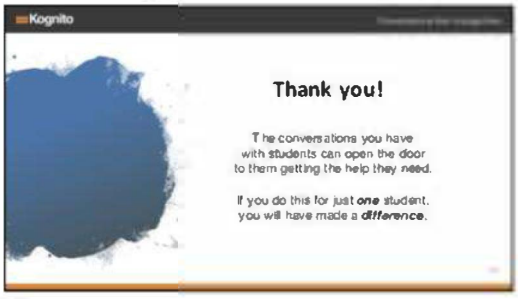
25


Kognito
NATIONAL
SUICIDE
PREVENTION
LIFELINE
1-800-273-TALK (8255)
Coming in 2022:
988
National Suicide Prevention Lifeline

26


Kognito
Conversations that change lives.
IN A CRISIS?
Text HOME to 741741 to connect with a Crisis Counselor
Free 24/7 support at your fingertips.
Text Us

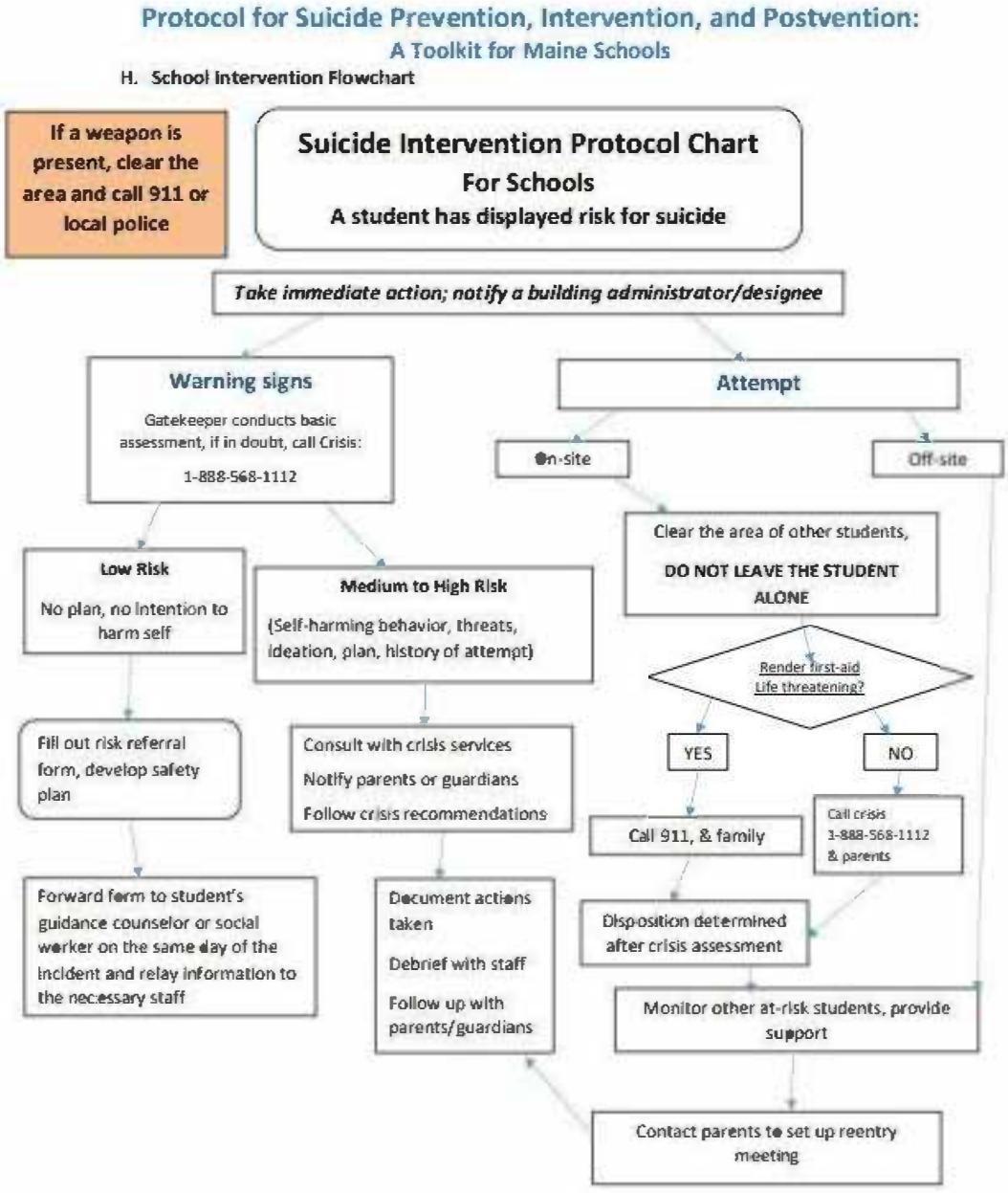
27


Kognito
Thank you!
The conversations you have with students can open the door to them getting the help they need.
If you do this for just one student, you will have made a difference.

28

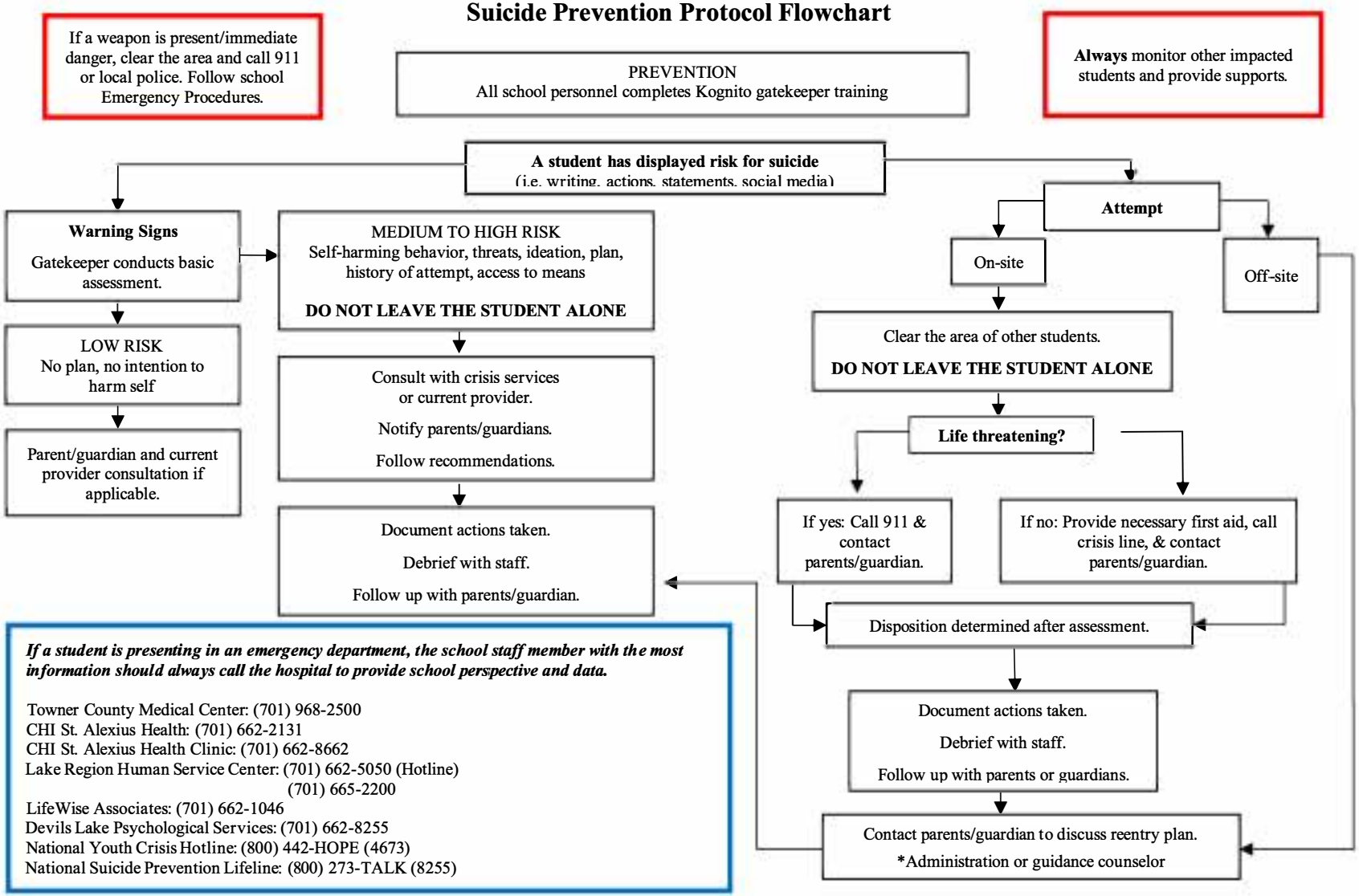
Appendix E

NAMI Maine School Intervention Flowchart



Appendix F

Suicide Prevention Protocol Flowchart



Appendix G

Gatekeeper Behavior Scale Pre-Intervention

Number	Item	Response Scale				
		Very low (1)	Low (2)	Medium (3)	High (4)	Very high (5)
How would you rate your preparedness to:						
1	Recognize when a student's behavior is a sign of psychological distress					
2	Recognize when a student's physical appearance is a sign of psychological distress					
3	Discuss with a student your concern about the signs of psychological distress they are exhibiting					
4	Motivate students exhibiting signs of psychological stress to seek help					
5	Recommend mental health support services (such as the counseling center) to a student exhibiting signs of psychological distress					
		Very unlikely (1)	Unlikely (2)	Likely (3)	Very likely (4)	
Please rate your likelihood to do the following behaviors:						
6	How likely are you to discuss your concerns with a student exhibiting signs of psychological distress?					
7	How likely are you to recommend mental health/ support services to a student exhibiting signs of psychological distress?					

		Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
Please rate how much you agree/disagree with the following statements:					
8	I feel confident in my ability to discuss my concern with a student exhibiting signs of psychological distress				
9	I feel confident in my ability to recommend mental health support services to a student exhibiting signs of psychological distress				
10	I feel confident that I know where to refer a student for mental health support				
11	I feel confident in my ability to help a suicidal student seek help				

In the past 6 months, approximately how many students have you:

Been concerned about due to their psychological distress?

Approached to discuss your concerns about their psychological distress?

Referred to a mental health specialist or primary care provider?

Adapted from Albright, G. L., Davidson, J., Goldman, R., Shockley, K. M., & Timmons-Mitchell, J. (2016b). Development and validation of the Gatekeeper Behavior Scale. *Crisis, 37*(4), 271-280. https://doi.org/10.1027/0227-5910/a000382

Appendix H

Gatekeeper Behavior Scale Post-Intervention

Number	Item	Response Scale				
		Very low (1)	Low (2)	Medium (3)	High (4)	Very high (5)
How would you rate your preparedness to:						
1	Recognize when a student's behavior is a sign of psychological distress					
2	Recognize when a student's physical appearance is a sign of psychological distress					
3	Discuss with a student your concern about the signs of psychological distress they are exhibiting					
4	Motivate students exhibiting signs of psychological stress to seek help					
5	Recommend mental health support services (such as the counseling center) to a student exhibiting signs of psychological distress					
		Very unlikely (1)	Unlikely (2)		Likely (3)	Very likely (4)
Please rate your likelihood to do the following behaviors:						
6	How likely are you to discuss your concerns with a student exhibiting signs of psychological distress?					
7	How likely are you to recommend mental health/ support services to a student exhibiting signs of psychological distress?					
		Strongly disagree (1)	Disagree (2)		Agree (3)	Strongly agree (4)

Please rate how much you agree/disagree with the following statements:

8	I feel confident in my ability to discuss my concern with a student exhibiting signs of psychological distress				
9	I feel confident in my ability to recommend mental health support services to a student exhibiting signs of psychological distress				
10	I feel confident that I know where to refer a student for mental health support				
11	I feel confident in my ability to help a suicidal student seek help				

Adapted from Albright, G. L., Davidson, J., Goldman, R., Shockley, K. M., & Timmons-Mitchell, J. (2016b). Development and validation of the Gatekeeper Behavior Scale. *Crisis, 37*(4), 271-280. https://doi.org/10.1027/0227-5910/a000382

Appendix I

Gatekeeper Behavior Scale 6-Month Follow-Up

Number	Item	Response Scale				
		Very low (1)	Low (2)	Medium (3)	High (4)	Very high (5)
How would you rate your preparedness to:						
1	Recognize when a student's behavior is a sign of psychological distress					
2	Recognize when a student's physical appearance is a sign of psychological distress					
3	Discuss with a student your concern about the signs of psychological distress they are exhibiting					
4	Motivate students exhibiting signs of psychological stress to seek help					
5	Recommend mental health support services (such as the counseling center) to a student exhibiting signs of psychological distress					
		Very unlikely (1)	Unlikely (2)	Likely (3)	Very likely (4)	
Please rate your likelihood to do the following behaviors:						
6	How likely are you to discuss your concerns with a student exhibiting signs of psychological distress?					
7	How likely are you to recommend mental health/ support services to a student exhibiting signs of psychological distress?					
		Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)	

Please rate how much you agree/disagree with the following statements:

8	I feel confident in my ability to discuss my concern with a student exhibiting signs of psychological distress				
9	I feel confident in my ability to recommend mental health support services to a student exhibiting signs of psychological distress				
10	I feel confident that I know where to refer a student for mental health support				
11	I feel confident in my ability to help a suicidal student seek help				

In the past 6 academic months, approximately how many students have you:

Been concerned about due to their psychological distress?

Approached to discuss your concerns about their psychological distress?

Referred to a mental health specialist or primary care provider?

Adapted from Albright, G. L., Davidson, J., Goldman, R., Shockley, K. M., & Timmons-Mitchell, J. (2016b). Development and validation of the Gatekeeper Behavior Scale. *Crisis, 37*(4), 271-280. https://doi.org/10.1027/0227-5910/a0

Appendix J

Demographic Survey

Please code your survey to allow for matching.
All your answers will remain confidential.

Middle Initial _____ Last Four of Cell Number _____

What is your age?

What is your gender?

What is your race?

- ☐ Caucasian
- ☐ American Indian/Alaskan Native
- ☐ Asian
- ☐ Black/African American
- ☐ Native Hawaiian/Pacific Islander
- ☐ I prefer not to answer

How many years have you worked in education?

What is your primary role at the school?

- ☐ Administration
- ☐ Teacher
- ☐ Paraprofessional
- ☐ Nutrition Services
- ☐ Environmental Services
- ☐ Transportation Services
- ☐ Coach
- ☐ Other (please specify):

Please select the grade level(s) you work with:

- ☐ Elementary
- ☐ Middle/Junior High
- ☐ High School

Have you had previous mental health and/or suicide prevention training?

- ☐ Yes
- ☐ No

Appendix K

Instructions for Registration

Appendix L

Mean, Standard Deviation, and p-values for Pre-Implementation, Post-Implementation, and 6-Month Follow-Up Surveys

		Pre-	Post-	Follow-Up	
		M (SD)	M (SD)	M (SD)	p-value
How would you rate your preparedness to[a]:					
Q1	Recognize when a student's behavior is a sign of psychological distress	3.50 (0.53)	3.94 (0.60)	3.63 (0.52)	.057
Q2	Recognize when a student's physical appearance is a sign of psychological distress	3.25 (0.87)	4.00 (0.67)	3.56 (0.40)	.004
Q3	Discuss with a student your concern about the signs of psychological distress they are exhibiting	2.81 (0.43)	3.94 (0.73)	3.25 (0.60)	<.001
Q4	Motivate students exhibiting signs of psychological stress to seek help	2.94 (0.33)	3.75 (0.47)	3.50 (0.53)	.001
Q5	Recommend mental health support services (such as the counseling center) to a student exhibiting signs of psychological distress	2.88 (0.78)	4.00 (0.40)	3.63 (0.52)	<.001
Please rate your likelihood to do the following behaviors[b]:					
Q6	Discuss your concerns with a student exhibiting signs of psychological distress	2.81 (0.30)	3.31 (0.23)	2.94 (0.46)	.009
Q7	Recommend mental health/support services to a student exhibiting signs of psychological distress	3.00 (0.27)	3.25 (0.20)	2.88 (0.38)	.025
Please rate how much you agree/disagree with the following statements[c]:					
Q8	I feel confident in my ability to discuss my concern with a student exhibiting signs of psychological distress	2.75 (0.33)	3.25 (0.20)	2.88 (0.12)	.001
Q9	I feel confident in my ability to recommend mental health support services to a student exhibiting signs of psychological distress	2.81 (0.30)	3.25 (0.20)	2.81 (0.16)	.007

Q10	I feel confident that I know where to refer a student for mental health support	2.69 (0.36)	3.06 (0.46)	2.94 (0.33)	.074
Q11	I feel confident in my ability to help a suicidal student seek help	2.69 (0.36)	3.25 (0.33)	2.81 (0.43)	.007

[a] Items were rated on a 5-point scale (1 = Very low, 2 = Low, 3 = Medium, 4 = High, 5 = Very high). [b] Items were rated on a 4-point scale (1 = Very unlikely, 2 = Unlikely, 3 = Likely, 4 = Very likely). [c] Items were rated on a 4-point scale (1 = Strongly disagree, 2 = Disagree, 3 = Agree, 4 = Strongly agree).

Appendix M

Self-Reported Behaviors and Referrals

	Pre-intervention	6-Month Follow-Up
In the past six months, approximately how many students have you:		
Been concerned about due to their psychological distress?	63	45
Approached to discuss your concerns about their psychological distress?	26	28
Referred to a mental health specialist or primary care provider?	10	13