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Reducing Depression and Suicide Ideation Among College Students

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CAPSTONE PROJECT PAPER

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Abstract

Suicide rates have been on the rise for the past 30 years; 42,773 Americans dying every year by suicide. Suicide is the tenth leading cause of death among all ages, but the second leading cause of death among Americans ages 15-24. College students traditionally fall within this age group, and are especially at risk for suicide due to stressful life conditions. The University of Kentucky, located centrally within Kentucky in the city of Lexington, is an ideal location for a suicide prevention intervention. Students demonstrated an increased rate of depression compared to the national population (15.13% of students surveyed reported a recent depressive episode and 11.21% reported a past episode). The Counseling Center within the University is at capacity, and currently sees 5% of students. In support of this grant, the University of Kentucky has created the Suicide Prevention Operations Task force (UK SPOT), with three main objectives: 1) deliver gatekeeper training to students and faculty; 2) increase screening efforts in healthcare settings; and 3) enhance availability of current mental health services. For objective 1, Kognito At-Risk program is administered to university students, faculty, and staff. The Kognito At-Risk program is a 30- minute online training that prepares participants to recognize symptoms of mental health distress that, left unaddressed, could lead to severe depression, anxiety, substance abuse, and suicide ideation. The interactive program is self-paced and narrative driven, which provides and engaging simulation that is representative of real life stressors and situations faced by college students. Kognito teaches users to recognize signs of distress, engage in meaningful conversation, and refer students to appropriate services. For objective 2, additional screening will occur at University Health Services (UHS) through administration of the Beck Depression Inventory of Primary Care to students, and additional suicide prevention training with providers with Kognito At-Risk training and suicide consultation. For objective 3, additional staff will be utilized to increase capacity of the Counseling Center. The Kognito At-Risk program will be evaluated with a pre-test, post-test, and three-month follow-up survey to gauge self-efficacy, knowledge, course satisfaction, and demographics. Additional measures will include campus-wide mental health surveys, monitoring of referral rates at UHS, and service uptakes at the Counseling Center. Long-term outcomes will lead to increased use of Counseling Center resources and reduced rates of suicide ideation.

Target Population & Need

The burden of mental illness in America is among the highest of all diseases and one of the most common causes of disability. Recent data suggest that approximately 1 in 4 adults in the United States had a mental health disorder within the past year, most commonly anxiety or depression, and 1 in 17 had a serious mental illness[1]. Nearly half of all adults will develop at least one mental illness during their lifetime[1]. Mental health is essential to a person's well-being. Those with untreated mental health disorders are at high risk of many unhealthy and unsafe behaviors ranging in severity from minor disruptions in daily routine to debilitating personal, social, and occupational impairments, even leading to premature death.

Depression is a mental health condition that presents in multiple levels of both length and severity. Individuals with depression experience a state of persistent low mood that is accompanied by low self-esteem and by a loss of interest in normally enjoyable activities. People with depressive illnesses do not all experience symptoms in the same way, which makes it difficult to both diagnose and treat depressive disorders. Depression is often undiagnosed and untreated. The prevalence of major depression among women has been shown to be typically between one and a half to three times that of men[2]. In a comparison of somatic depression (symptoms of which include appetite and sleep disturbances and fatigue accompanied by pain and anxiety) among men and women, female respondents had twice the prevalence as males[3].

Disparities in the prevalence of major depressive disorder also exist by race and ethnicity. According to findings from the National Health and Nutrition Examination Survey,

prevalence of major depressive disorder was significantly higher in Whites than in African Americans and Mexican Americans[4]. Poverty was also found to be a significant risk factor for major depressive disorder; an individual living in poverty had nearly one and a half times the prevalence of major depressive disorder. Lack of education was significantly associated with prevalence of major depressive disorder only for Mexican Americans. In contrast, prevalence of dysthymic disorder was significantly greater among African American and Mexican American individuals compared with Whites[4].

The danger of depression is its associated increased risk for suicide ideation and attempts. Suicide is associated with major depressive disorder. In 2013, an estimated 9.3 million adults aged 18 or older within the United States (3.9 percent of the total population) had serious thoughts of suicide within the past year[5]. Adults in the age group 18 to 25 demonstrate higher rates of suicidal thoughts compared to the general adult population, with 7.4 percent experiencing suicidal thoughts within the past year, as seen in Figure 1.

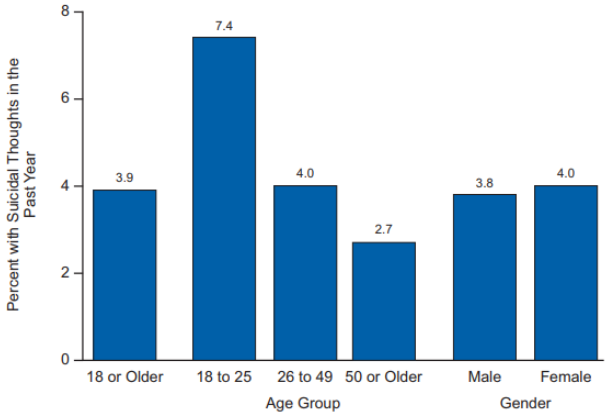

Figure 1 Suicidal Thoughts in the Past Year Among Adults Aged 18 or Older, by Age and Gender: 2013.[5]

According to the National Institute of Mental Health, 42,773 Americans die each year by suicide[1]. Though Healthy People 2020 has identified suicide as a leading health indicator, it is one of the few indicators that has recently worsened: from 2006 to 2010, the United States

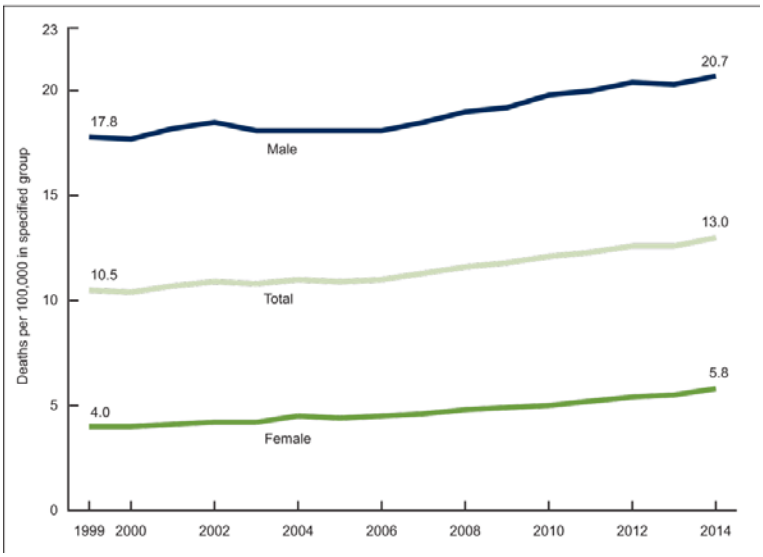

Figure 2: Age-adjusted suicide rates, by sex. United States, 1999-2014.[5]

suicide rate has increased about 7 percent, from 11.2 per 100,000 to 12.1 per 100,000, moving away from the Healthy People 2020 target of 10.2 per 100,000[6]. This shift in suicide rate can be seen in Figure 2.

Suicide is one of the ten leading causes of death for females between the ages of 10 and 54 in the United States[7]. Around the world, women have higher rates of suicidal ideation and behavior, but lower rates of suicide mortality than men. Suicide rates may vary based on methods used by the genders to attempt suicide. While women have a higher rate of attempted suicide, they are more likely to use methods that do not result in immediate death. Men frequently attempt suicide using high mortality methods such as firearms, carbon-monoxide poisoning, or hanging. Women, on the other hand, tend to rely more heavily on drug overdose[8].

Data from the Centers for Disease Control and Prevention reveal steadily increasing suicide rates among Americans age 15-24[7]. Suicide is the second leading cause of death among Americans age 15-24[7]. While only limited data are available specific to college students regarding escalating suicide trends, college students fall in this at-risk age range.

University student populations come from diverse backgrounds and experiences that enrich the culture of the college environment. However, specific experiences and population

characteristics can increase likelihood of mental health distress. Student Veterans are a population that may require additional attention. Nationally, Veterans have higher rates of suicide in comparison to the general population. According to a comprehensive suicide data report conducted by the Veteran's Association in 2016, an average of 20 Veterans die by suicide each day. The rate of suicide is greatest within 3 years after leaving the service. After adjusting for differences in age and gender, risk for suicide was 21 percent higher among Veterans when compared with U.S. civilian adults[9] (Veteran's Affairs, 2016). Additionally, rates of suicide were found to be highest among younger Veterans (ages 18–29) and lowest among older Veterans (ages 60+), which pertains to Veterans in the University Setting.

Additional considerations need to be made for students of LGBTQ designations. Individuals of LGBTQ designations are at an increased risk of developing mental health disorders due to societal stress factors such as self-esteem issues, community or familial attitudes, feelings of isolation, and crises of identity. According to a 2013 study, 7.2% of US college students identify as gay, lesbian, or bisexual. These students are shown to report increased feelings of loneliness, are more likely to be diagnosed with depression, and endorse fewer reasons for living[10]. Numerous studies have found a higher prevalence of suicidal ideation and overall mental health problems among LGBTQ youth and young adults in comparison to heterosexual and gender conforming peers, commonly attributed to minority stress. A 2014 study found that members of the LGBTQ community living in areas with a higher degree of social stigma toward homosexuality tended to complete suicide at younger age, as commonly found among conservative communities[11].

The University of Kentucky

The University of Kentucky is centrally located within the state of Kentucky in the city of Lexington. Roughly 30,000 students are enrolled in the university each year. In Fall 2017, 22,447 students were enrolled as seeking a Bachelor's degree. 75.4% of those students identified as White, 7.7% identified as Black or African American, 4.8% identified as Hispanic or Latino, 2.7% identified as Asian, and 9.4% identified as Two/More Races or Other. Of the Fall 2017 Undergraduate students, 45.2% were male and 54.8% were female.

In a 2014 survey of randomly selected University of Kentucky undergraduates, depressive symptoms were evident. Of the male respondents, 13.98% reported a recent depressive episode lasting almost every day for 2 weeks, and a total of 23.42% reported ever having a depressive episode. Similarly, of female respondents, 16.11% reported a recent depressive episode, and 28.71% reported ever having a depressive episode. These results indicate that the prevalence of depressive symptoms among University of Kentucky students is consistent with national data.

Due to a growing student population, the University of Kentucky Counseling Center is not able to see every student in need of counseling. There is currently a wait list for individual counseling, causing wait times between one to three months for counseling appointments. The department operates 20 group therapy sessions per week, and its providers sees up to 80 people per day. Students at the University of Kentucky experiencing major depression are at increased risk for suicidal ideation and behavior, but access to mental health services is limited.

Implementation of a suicide prevention intervention at the University of Kentucky would help decrease the risk of suicide in the student population.

The prevalence of depression among college students necessitates an intervention that can reach a large population with easy implementation. In college and university settings, peers, student staff (such as residence advisors [RAs]), professional staff, and faculty are ideally placed to intervene with at-risk students. These individuals may serve as gatekeepers and recognize signs of distress, risk factors for suicide, and potential for improved quality of life through counseling services. Gatekeeper programs are designed to improve users' "knowledge, attitudes, and skills to identify (those) at risk, determine levels of risk, and make referrals when necessary"[12]. In a 2012 study, Downs and Eisenberg found that a majority (64.1%) of students who sought professional mental health services reported encouragement from others as an important factor in deciding to seek support[13]. Additional research has shown that students prefer to discuss mental health issues with a peer rather than a professor. Thomas Joiner, with his Interpersonal Theory of Suicide, identified "thwarted belongingness" as one of three factors that account for suicide. Gatekeeper programs combat perceived thwarted belongingness through interpersonal intervention and demonstrations of concern[14].

Program Approach

Initial Planning and Readiness Period

Comprehensive strategic planning was used in the creation of the program approach for this grant application. Initially, a group of five representatives from University of Kentucky programs met to discuss plans for a suicide prevention program for college students.

Representatives came from the Counseling Center, University Health Services, the College of Public Health, the College of Social Work, and the Wellness Initiative for Student Empowerment. These five groups represented the founding groups of the UK Suicide Prevention Operations Taskforce (UK SPOT), which serves as the preliminary Community Advisory Board for the project. The group identified suicide prevention as a need on the University of Kentucky campus, and began designing plans to increase student uptake of mental health services and to improve the capacity of the Counseling Department. UK SPOT subsequently expanded to include ten University of Kentucky departments and seven Kentucky community partners. This grant proposal is being submitted with the support of each of these groups.

To prevent suicide among college students at the University of Kentucky, a multi-level intervention program has been designed within the Counseling Center. UK SPOT will help to guide an inter-departmental campus effort that aims to achieve three key objectives: (1) deliver gatekeeper training and awareness campaigns about mental health to students, staff, and faculty; (2) increase screening efforts in order to identify and refer individuals at risk of suicidal behavior through the use of standardized instruments administered in student health settings; and (3) enhance the ability of the campus community to respond to mental health needs by increasing availability of current mental health treatment services.

Objective 1: Gatekeeper training and awareness

The primary component of the suicide prevention program will focus on the implementation of *Kognito*, a computer-based training module for students and staff. Our

program approach will address the three key objectives described above to design a comprehensive approach to prevent suicide at the University of Kentucky. The *Kognito* program is specific to objective 1, in which we aim to deliver gatekeeper training and awareness campaigns about mental health to students, staff, and faculty.

Kognito Background and Evidence Base

In the university setting, it is common to see students who are having a difficult time coping with stress and mental health conditions. However, it is often difficult to start the conversation about how to connect struggling students to the appropriate services. The *Kognito At-Risk for College Students* and *Kognito At-Risk on Campus for University and College Faculty & Staff* programs are interactive online courses that teach users to recognize the signs of depression, anxiety, and substance abuse.

The *Kognito At-Risk* program is a 30- minute online training that prepares participants to recognize symptoms of mental health distress that, left unaddressed, could lead to severe depression, anxiety, substance abuse, and suicide ideation. The interactive program is self-paced and narrative driven, which provides and engaging simulation that is representative of real life stressors and situations faced by college students. Participants of the program build knowledge, skills, and self-efficacy to identify, engage, and refer students to counseling, mental health, or crisis support services. By practicing conversation dialogues with fully animated and emotionally responsive avatars that act and respond like real human beings, participants learn effective communication tactics for managing challenging conversations. The program also works to reduce the stigma surrounding mental health issues by establishing commonality of

stress among college students and the unique life situations that can put one at greater risk for emotional distress. The program increases protective mental health tendencies by promoting help-seeking behavior and improving social connection that supports common goals of healthy mental states. *Kognito'*s proprietary Human Interaction Game Engine works to deliver the simulations based on research in social cognition, neuroscience, and motivational interviewing.

The *Kognito At-Risk for College Students* program begins with users encountering social situations with simulated friends and identifying and assessing the severity of warning signs in each friend. Once the user has selected the friend who is most at risk, participants engage in guided conversation with the avatar with the ultimate goals of understanding the friend's situation and referring to mental health services if appropriate. The users learn evidence-based techniques to engage in conversation a about psychological distress, and the skills to motivate that friend to seek further help from campus counseling centers. Program users also learn to avoid common "gatekeeper" behavior pitfalls such as attempting to diagnose the problem or giving unwanted advice. The program is responsive to the conversation choices that the user choses, which provides hands-on practice for users to appropriately navigate difficult conversations. As a result, the training increases the user's self-efficacy in handling similar situations in the real world. Users are also encouraged to seek counseling themselves if they are experiencing psychological distress. A local resources button on the course links users to specific information about counseling and mental health services available at the university and in the surrounding community.

The program has been shown to be effective and earned a ranking within SAMHSA's registry of evidence-based programs. The original study regarding the effectiveness of the *Kognito At-Risk for College Students* was conducted between May 2011 and January 2013 with 270 students at 20 institutions for higher education in 10 states including California, Florida, New Jersey, Massachusetts, Texas, and Virginia. Of those participating, 64% were females. 77% of participants were White, 9% were Black, 10% were Hispanic, 12% were Asian, and 3% were Native American or Alaska Native. Just over half of the participants were mandated to take the simulation as part of their freshman orientation, class assignments, or training as a resident advisor[15].

Results demonstrated a significant increase in Total Mental Health Skills from pre- to post-simulation that remained significant at 3-month follow-up. Total Mental Health Skills included four self-perceived preparedness measures, including ability to: (1) identify when a fellow student's behavior or appearance is a sign of psychological distress, (2) discuss concern with a fellow student, (3) motivate a fellow student to seek help, and (4) make a referral to mental health services. Participants reported their preparedness for each measure using a 4-point Likert scale from low (1) to very high (4). Further, the study found significant and sustainable behavioral changes on two levels: approach and referral rates, and self-referral.

Evaluation of the *Kognito* program was conducted through West Virginia University's campus in 2014. The *Kognito* training was made available to any WVU faculty, staff, or undergraduate/graduate students. Participants for the study were largely self-selected volunteers incentivized by gift cards and course/extra credit. The training was mandated for all

residence hall staff, graduate teaching assistants, and University Police Department. Survey data was obtained from a total of 4,428 participants. Using independent sample *t*-tests and 3-way ANOVA, researchers found significant levels of improved scoring among participants of the *Kognito* program in measures of perceived preparedness, likelihood, and self-efficacy to identify and refer others to mental health resources between pre-test to post-test surveys (Rein 2018). In a 2016 quasi-experimental study in an American Indian community, *Kognito* training produced significant improvements in measures of perceived preparedness, likelihood, and self-efficacy measures, as well as high ratings of acceptability describing the *Kognito* program as "1) a useful tool, 2) well-constructed, 3) easy to use, 4) likely to help the learner with a student in psychological distress, 5) based on scenarios that are relevant, and 6) likely to aid the learner in getting timely help for the student."[16]. Additional unpublished studies conducted by the researchers and developers of *Kognito* reveal similar improvements reported by users, which are available on the *Kognito* website.

The *Kognito At-Risk for Faculty and Staff* follows the same gatekeeper training protocol, with tailored scenarios reflective of faculty and staff interactions with students. The faculty scenarios guide users through interactions with students within the classroom and through one-on-one conversations navigating difficult conversations regarding mental health status. Further, faculty and staff will develop awareness of negative stereotypes and misconceptions about mental health and illness. The program guides the users through four states of the learning experience: identification, approach and referral, feedback, and completion. By the completion of the program, faculty members should have increased confidence in their ability

to talk to students that may be at risk of dropping out due to stressors or at risk for suicide ideation.

Kognito Program Implementation at the University of Kentucky

Kognito will be will be implemented with four settings at the University of Kentucky: undergraduate students, graduate teaching assistants, faculty, and staff who have direct student interaction, such as residence life staff, academic advisors, and student involvement advisors. Participants will be directed to take the program most pertinent to their role at the university in relation to undergraduate students: current undergraduate students will be directed to participate in the *Kognito: At-Risk for Students*, while designated employees at the university who are not currently undergraduate students will be directed to participate in the *Kognito: At-Risk for Faculty & Staff*.

In the Fall of Year 1, the *Kognito* training will be required of all undergraduate students in order to register for classes. This follows a precedent of required trainings within the university setting (see relevant examples of AlcoholEDU and HAVEN below). In the Fall of Years 2 and 3, all freshman and transfer students will be required to complete the *Kognito* training. All graduate teaching assistants, faculty, and staff will be required to complete the *Kognito* training on a yearly basis as a University requirement for continued education.

By design, *Kognito* features a diverse cast of avatars that are reflective of the university, including a mix of race, gender, cultural background, and ability. No adaptations to the original training program will be needed prior to administration to the students at the University of Kentucky. However, due to the increased risk factors for suicide and unique stressors

experienced by specific minority groups within the university, two additional, pre-existing versions of the *Kognito* training will be available for use: *LGBTQ on Campus* and *Veterans on Campus.* Both programs teach participants skills to recognize students in distress and navigate difficult conversations regarding mental health and suicide, as taught in the generalized *Kognito At-Risk* program. However, the *Kognito LGBTQ on Campus* and *Kognito Veterans on Campus* adapt the training to be more reflective of each target group. Through this program option, participants build cultural competency and relevant skills to meet the challenges faced by each group. Students, faculty, and staff will have the option to self-select into these adaptations of the *Kognito* program, and encouraged to choose these options based on what s/he feels is most appropriate.

The *Kognito* program is a perfect fit for the college setting. Due to the nature of the college learning environment, a majority of students own laptop computers. Those who do not own a computer have free access to campus computer labs through the University library. Completion of the *Kognito* program will be necessary in the Fall Semester for all undergraduate students. If a student fails to complete the training, a hold will be placed on his/her account until the training is completed. Online administration of the program allows for high fidelity: the training will run according to designed specifications per the nature of the programming.

The use of online training programs is a precedent that is already in place at the University of Kentucky. Currently, two online programs related to student health and safety are required for all incoming students: AlcoholEDU, a web-based substance abuse prevention program; and HAVEN, a web-based sexual assault and interpersonal violence prevention

program. The use of online programs at the University indicates the capacity to operate the *Kognito* program through pre-established avenues. These programs target significant challenges for college students, but a gap exists in training college students for the recognition of mental health issues and referral to counseling. The successful use of these programs at the University of Kentucky sets a precedent for success for the *Kognito* program.

Evaluation data will be used to justify the sustainability of the suicide prevention intervention after the end of federal funding. In addition to demonstrating need through baseline assessment and evaluation of the suicide prevention intervention, the case will be made for both retention and safety of university students. Retention rates in the university setting are of high importance. Though national rates of college completion have been on the rise, retention rates during the first year of college remain a concern; about one third of students drop out during the first year of college[17]. Adjustment to college requires emotional adjustments, stress management, and coping skills. These factors could influence college retention, especially if students do not have access to support services or feel inclined to pursue these services. Student safety is demonstrated long-term by encouraging use of health services and decreased suicide rates in the student population. Justification for the creation of staff positions dedicated to suicide prevention will come from utilization statistics such as number of counseling visits and students seen, and these data will inform department budgets after the completion of the grant period. Further explanation of the evaluation for capacity can be found within the Performance Measures and Evaluation section.

Potential Challenges in Implementation

Two key challenges in *Kognito* training implementation have been identified. First, there may be resistance to the intervention due to the sensitive topic of suicide, which has stigma against seeking help and can serve as a trigger for some individuals. To address this, all staff working with the project will undergo extensive sensitivity training regarding suicidality and mental health distress to learn the appropriate manner and language to describe the subject. Specialized media campaigns from the center will focus on reducing the stigma of mental health distress and normalizing conversation regarding suicidality. Any student who feels that the *Kognito* training may be a trigger for him/her may also file an exception with the counseling center and complete an alternative training related to awareness of mental health services on campus. Second, there may be problems in the current capacity of the Counseling Center and Behavioral Health to meet the demands associated with increased uptake of care. To address this, part of the grant funding will be used to build capacity of the Counseling Center by hiring two additional psychologists (further described by Objective 3).

Objective 2: Increase screening efforts

A secondary avenue will be pursued to identify students who are at-risk for suicide: increased screening for depression and suicide ideation in a healthcare setting. Objective 2 will be accomplished through partnership with the University of Kentucky- University Health Service (UHS). UHS offers non-urgent and primary care appointments to full-time undergraduate students and students who have paid the student health fee. To increase identification of at-risk individuals, depression/suicide ideation screening will be required of students once every

six months. Screening will occur during the check-in process at University Health Services on the computer desktops.

The Beck Depression Inventory for Primary Care (BDI-PC) has been proven as an accurate and reliable screening test for major depression in the primary care setting. The screening method is a shortened version of the Beck Depression Inventory, idealized for easy administration to patients in a clinical setting. The inventory consists of seven questions related to factors such as sadness, self-dislike, suicidal thoughts/wishes, and loss of interest. Participants are asked to rate each question on a four-point scale (range 0-3) based on the past two weeks, and a total score is calculated from a sum of each question (for a maximum score of 21). Scores of 0-3 indicate minimal depression symptoms, 4-6 indicate mild depression symptoms, 7-9 indicate moderate depression symptoms, and 10-21 indicate severe depression symptoms. Prior studies have shown that at a ≥4 cut off, the BDI-PC has a sensitivity of 97% and a specificity of 99% (Beck).

If a student screens positive for depression symptoms using BDI-PC, it will be the obligation of the provider to follow up on the screening during the student's appointment for further investigation and referral to treatment. Increased training with providers will allow for easy navigation of conversations regarding mental health and suicide. In this regard, *Kognito At-Risk in Primary Care* training will be administered to all providers in University Health Services. The interactive role-playing simulation trains providers how to screen patients for mental health conditions, use motivational interviewing techniques, and coordinate referrals or follow-up care. The *Kognito* training follows the same progression as the *At-Risk for Students*, but goes

more in-depth for diagnosis and motivational interviewing skills. The additional training will allow for all providers to feel comfortable in navigating conversations regarding mental health and suicide.

Objective 3: Enhancement of services

Due to the current overextension of resources in the Counseling Center, additional support is needed to provide counseling services to students on campus. The logic behind this support is that improved referral to services will be ineffective without the capacity of the counseling department to handle increased demand. Project funds will be dedicated to hiring two additional counselors for increased numbers of initial assessments and therapy. Additionally, the creation of UK SPOT helps to create integrated institutional support for suicide prevention across campus. A united front will be presented on campus to demonstrate support of the mental health status of students. Specific duties that traditionally were required of the counseling staff, such as scheduling of QPR trainings and outreach to University departments, will be delegated to suicide prevention program implementation staff. This redistribution of tasks will lessen the burden on primary Counseling Center psychologists and allow for increased client care. The Suicide Prevention Coordinator will work will all faculty, staff, and UHS providers as a consultant on suicide related matters (for both at-risk students and cases of suicide). Additionally, the Suicide Prevention Coordinator will conduct periodic continued education seminars related to suicide prevention.

Performance Measures & Evaluation

Formative Evaluation

The initial focus of the Suicide Prevention Operations Taskforce will be a campus-wide Mental Health Survey to gather data assessing the current prevalence of mental health distress and suicide ideation on the University of Kentucky campus. These surveys will be conducted to gather a comprehensive snapshot of the mental health and suicide prevention needs among undergraduate students. Currently at the University, there is a lack of clear, widespread evaluation on mental health of students. The principle evaluation that will be conducted on the University campus is a thorough mental health needs assessment to determine rates of at-risk students and rates of suicide ideation. The survey will be conducted as a stratified random sampling of University of Kentucky undergraduate students, with the aim of responses from 15-20% of the undergraduate student body. Each classification (freshman, sophomore, junior, senior) will be represented, and sociodemographic distribution of the sample will reflect that of the general student body.

The aim of the survey is initially to create a base-line evaluation of mental health state of the University of Kentucky undergraduate student body prior to the intervention programming being implemented on campus. The survey will be distributed annually, and will provide student population-level data to enable us to measure changes in outcomes as cohorts of incoming students are exposed to the *Kognito* program. Because students will indicate on the survey if they have completed the *Kognito* training, we will also compare between those students who have completed *Kognito* and those who have not to identify changes in attitudes

toward depression and suicide, competence in helping at-risk individuals, and knowledge of mental health resources.

A second survey will be used to gather data from every full-time student (defined as enrolled in 12 or more credit hours in the semester) enrolled at the University. The University of Kentucky C.A.T.S. (Campus Attitudes Toward Safety) survey is a mandatory survey of all students gathering feedback regarding the campus climate and efforts to ensure the best possible environment for all students. Participation in the C.A.T.S. survey helps to create a culture and environment in which all students can feel safe and successful. Four questions will be added to the C.A.T.S. survey regarding suicidal tendencies using the Suicidal Behaviors Questionnaire-Revised (SBQ-R). The four items each tap into a different dimension of suicidality: prior attempts, frequency of suicide ideation, threat of suicide attempts, and self-reported likelihood of suicidal behavior in the future. These additional questions will help to get a more comprehensive insight into the prevalence of suicidal tendencies on campus.

In addition, focus groups will be conducted with five groups of 10-15 students to gather qualitative data regarding perceptions of mental health on campus, including the largest stressors for students, mental health support exhibited by faculty and staff of UK, and the stigmas that surround depression and suicide among college students. Questions will be asked regarding the knowledge of the mental health services available on campus for students and regarding knowledge on how to access these services. The focus group results will help to guide the Suicide Prevention Taskforce in tailoring programs and campaigns based on the needs and

perceptions of the student body. To gain participation in the study, a free lunch will be given to all students who participate, as well as a $10 coffee gift card.

Program Evaluation

By the nature of the program, suicide prevention programs are challenging in direct measurements of the overarching program goals of decreasing suicide ideation rates. However, UK SPOT aims for intensive evaluation practices that evaluation intermediate outcomes associated with preventing suicides, as well as the use of available suicide surveillance data to inform the program on progress, determine where evidence-based programing is being effective, and identify problematic areas that can be improved to use both time and resources more efficiently. We have used the program logic model (see Appendix 2) to tie evaluation techniques to specific short term and intermediate outcomes of the program. The success of short term and intermediate outcomes will help to inform the program staff on the drivers of any changes in the long-term outcomes of the program, including changes in suicide rates.

Evaluation data will be maintained by the Suicide Prevention Coordinator. All process and outcome evaluation results will be collected and turned into reports to be turned into grant providers on a semi-annual basis following program implementation. Evaluation results will help to guide the program implementation and actions moving forward.

Each of the three program objectives will be evaluated in terms of process, where data are collected regarding the program's implementation in relation to of fidelity, accountability, and action, and in terms of outcome, where data are collected regarding effectiveness of the

program in producing change in specific outcomes. Each evaluation technique used will be outlined in this section of the grant proposal.

Objective 1: Gatekeeper training and awareness

The Kognito-At Risk for College Students program includes evaluation measures that aim to assess the participant's self-efficacy to recognize someone at-risk of mental health distress and refer him/her to the appropriate services (see Appendix 5 for full survey questions). All questions are connected through infrastructure and aggregated to show the effectiveness of the evidence-based *Kognito* program. The standardization of the questions across the nation allows for comparison at universities across the United States of America.

Prior to the delivery of the online course, a 5-question pre-survey is given that asks about the participant's self-efficacy in recognizing mental distress and ability to engage in a productive conversation resulting in expression of concern for the individual and referral to mental health services. Immediately following the completion of the course, a 22-question post-survey is issued immediately. This post-survey includes the identical questions of the pre-survey regarding self-efficacy of recognizing mental health distress and engaging in conversation resulting in uptake of mental health services. The survey also asks demographic questions and questions regarding satisfaction with the course itself. The final follow-up survey is administered 3 months after the training is completed. The follow-up survey contains 16 questions, and again assesses the participant's self-efficacy in terms of gatekeeping ability to mental health services. The follow-up survey also asks regarding the use and helpfulness of the

survey in real-life scenarios. All the surveys make use of a mix of question techniques including Likert-style questions, multiple choice, and fill-in-the-blank.

Faculty and staff have a similar survey questionnaire, which includes a pre-test, a post-test, and a three-month follow-up survey. The faculty and staff survey reflects the measurement of self-efficacy to gatekeeping to mental health services, but asks additional questions regarding training background and allows for more-expansive free response on how to improve outreach efforts and improve the role of the gatekeeper at the institution. Neither the student nor faculty/staff survey will be incentivized. Each survey contains a message stating that the questions are voluntary, allowing for the student or faculty/staff member to skip the survey. However, completion of the *Kognito* program itself is required of students, faculty, and staff, and it is expected that a majority of program participants will complete the survey in the process of the *Kognito* training program.

The survey techniques employed by *Kognito* serve as both process and outcome evaluation. By asking about pre-and post-survey questions about self-efficacy in helping at-risk students, researchers can efficiently identify changes in attitude based on the training alone. The three-month follow-up helps to identify use of these skills, a much-needed activity to prove the program's effectiveness. Program questions ask users to rate the program overall, which helps to guide the process of use of *Kognito* as an efficient training tool; if the participants of the program do not feel that the tool is helpful or relent, then it is likely that confidence in the training will be decreased and likelihood to continue education on the subject of mental health is greatly reduced. Additionally, survey data collected through the annual Mental Health

Survey, C.A.T.S. survey, and focus groups will indicate if changes prevalence of depression and suicide ideation have occurred with the implementation of the *Kognito* training. Rates of counseling service uptake will also serve as an outcome measure for the *Kognito* training program.

Objective 2: Increase screening efforts

In Objective 2, the primary focus is the administration of the Beck Depression Inventory for Primary Care (BDI-PC). Regarding outcome evaluation, an increase in administration of the screening will indicate positive progress toward the goal of 80% screening rate for all student health patients once every academic year. The process evaluation will be essential in maintaining that proper screening techniques are implemented, and correct follow-up is given by the care providers. In the mid-year follow up training, qualitative data will be collected from care providers regarding the process of interpreting screening results, explaining the results to the patient, and providing referral services as part of a standard performance evaluation. On a quarterly basis, data will be collected and tracked to determine if students who screen positive on the BDI-PC enrolled in counseling services or mental health support.

Objective 3: Enhancement of services

Evaluation within Objective 3 aims to demonstrate the need for institutional support for additional hires within the Counseling Center. Process measures will be collected and reported monthly to give a comprehensive snapshot of the accomplishments within the Counseling Center. These process measures will include the number of full time employees, the number of caseloads of each provider, and the number of unique students seen by the Counseling Center.

Capacity and Experience of the Applicant Organization

The University of Kentucky was founded in 1865 as a public land-grant institution dedicated to improving lives in the community through a focus on education, research, healthcare, and service. The University is the flagship institution within the Commonwealth that improves the quality of life within Kentucky's borders and beyond. University of Kentucky's diverse student enrollment equaled 30,473 in Fall 2017, representing 117 countries, all 50 U.S. states, and all 120 Kentucky counties. The University features a major academic medical center will all six biomedical colleges (Dentistry, Health Sciences, Medicine, Nursing, Pharmacy, and Public Health) as well as Colleges of Agriculture, Engineering, and Law on a central campus. University of Kentucky has earned more than 80 national ranking for academic and research excellence.

The University of Kentucky has an extensive commitment to research, with academic activity spanning all 16 colleges, the graduate school, 76 multidisciplinary research centers, and 31 core research facilities. UK is one of 108 private and public universities in the country to be classified as a research university with very high research activity (RU/VH) by the Carnegie Foundation for the Advancement of Teaching. RU/VH universities represent 2.3% of all institutions in the classification system. The Carnegie Foundation has also recognized UK for its inclusion in the 2015 Community Engagement Classification, which recognizes institutions that present a commitment toward significant community engagement. UK faculty and staff brought in $285.1 million in sponsored project awards in Fiscal Year 2015. Federal agency funding,

largely from the Department of Health and Human Services, accounted for $153 million of the Fiscal Year 2015 total.

The University of Kentucky Counseling Center, part of the UK Division of Student Affairs, provides confidential psychological counseling to currently enrolled UK students and consultation services to all currently enrolled UK students, UK faculty and staff, and caregivers. The Counseling Center offers individual mental health initial assessments, short term counseling and therapy to support student growth, group counseling, major and career counseling, and outreach programming. Outreach is a key component to the work of the Counseling Center, and the programming often engages multiple University of Kentucky departments to best meet the needs of the UK student population.

The UK Counseling Centers has a large focus on suicide prevention. Primary outreach training is currently conducted through QPR training with UK faculty, staff, and residence life. QPR training can also be scheduled with student groups. Depression screenings are conducted at tabling events twice during the academic year, screening 200-300 students per outreach. The University of Kentucky infrastructure contains extensive support for large scale survey and program implementation, especially regarding student health and safety. Two prevention initiatives are required of students in order to help shape a safer campus: HAVEN, an online training regarding sexual assault, and AlcoholEDU, an online teaching program regarding safe alcohol consumption. Both programs are tracked using University of Kentucky “link blue” student log-in information, and are required to register for classes.

The Counseling Center has been awarded the JedCampus Seal. The JedCampus program is a nationwide initiative of the highly respected Jed Foundation designed to help colleges and universities explore and enhance mental health and suicide prevention programming. Institutions that have earned the Seal have demonstrated that they have put forth effort toward comprehensive mental health programming, as evidenced by the JedCampus self-assessment survey. The seal has only been awarded to a handful of universities nation-wide. Additionally, the Counseling Center has been a recipient of the Graham Memorial Fund for the past 10 years, which honors the family's two sons, one who died in military service and one who died in his fight against depression. These funds have been used toward suicide prevention efforts on the University of Kentucky campus.

The University of Kentucky is committed to a policy of providing opportunities to people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, marital status, age, veteran status, or physical or mental disability.

Partnerships & Collaborations

UK SPOT was formed on the University of Kentucky campus as a group of diverse partners with the common goal of reducing suicide ideation among college students. All organizations within the taskforce have a unique connection to the student population, and all focus on keeping college students engaged, motivated, and safe during their academic career. Each organization was invited to send one to two representatives to the taskforce. In the initial meeting, UK SPOT met to determine the purpose of the group and the three key objectives of

the collaboration. Achievement of the objectives will be monitored and fulfilled primarily by the Suicide Prevention Coordinator and the UK Counseling Center. The organizations in UK SPOT will work together on innovative initiatives that aim to increase knowledge of mental health treatment barriers and advocacy for improved mental health on campus, with the goal of reducing suicide ideation. Each member organization of UK SPOT has demonstrated a commitment toward improved student mental health efforts through the mission of their respective organizations, and representatives have pledged support of the multi-approach intervention initiative. Upon joining UK SPOT, each organization signs a Memorandum of Understanding acknowledging a commitment to sending a representative to the committee for the monthly meeting, and to contribute time or resources toward the suicide prevention initiatives, as appropriate. The description of each member organization and respective role can be seen in the table below.

The suicide prevention intervention at UK is supported by seven community consultant organizations in the Lexington and greater Kentucky area. These organizations include the Kentucky Cabinet for Health and Family Services, Kentucky Injury Prevention and Research Center (KPRIC), Kentucky Suicide Prevention Group, Kevin & Jeffrey Graham Memorial Fund, Mental Health America- Kentucky, and NAMI- Lexington. All consultant organizations have experience with health program implementation, mental health initiatives, and suicide prevention endeavors.

Each organization within UK SPOT has roles and responsibilities in implementing the suicide prevention program at the University of Kentucky. For a full description of each

organization and role in the intervention, refer to the table in Appendix 4. Partnerships and Collaborations Expansion.

Project Management

The project implementation will operate under the UK Counseling Department within the Division of Student Affairs. The Director of the Counseling Center, Dr. Nichole Henry, will serve as the Principal Investigator, and will directly supervise the Suicide Prevention Coordinator. Dr. Henry has supervised the University of Kentucky Counseling Center for five years, and has extensive experience with large scale programming and mental health research initiatives. UK SPOT will serve as a network of community partners who will help to guide the efforts of the project and to assist in the completion of campus-wide programming associated with preventing suicide.

All staff of the Counseling Center are highly educated and extensively trained in recognizing suicidal tendencies and providing appropriate treatment. Staff members have widespread experience working with large team initiatives, as demonstrated by the implementation of the QPR trainings and qualification for the JEDCampus Seal, recognizing extensive mental health programming. All Counseling Center employees will need experience working with a large team and with university programming initiatives. Two staff psychologists will be added to the Counseling Center through grant initiatives to increase capacity.

All program staff will take part in bi-annual performance evaluations with their supervisor. The performance evaluation will focus on progress in program goals and tasks

reflected in the position description. All staff will be required to take part in one continuing education program related to suicide prevention per year.

The Suicide Prevention Coordinator will act as the Program Coordinator. The Suicide Prevention Coordinator will be responsible for overseeing the day-to-day management of program resources, ensure that all measures are being collected appropriately, and monitor all program activities for fidelity. The Suicide Prevention Coordinator will serve as a representative in all Student Affairs meetings, and will work with University Health Services to ensure evaluation and implementation of screening techniques are being properly conducted. The Suicide Prevention Coordinator will additionally serve as the coordinator of all QPR and mindfulness trainings within the University.

The Graduate Assistant will assist the Suicide Prevention Coordinator in program implementation. S/he be the lead liaison to the Lexington and greater Kentucky community partners. The Graduate Assistant will be required to assist the Suicide Program Coordinator in collecting evaluation data for the preparation of reports as needed. The Graduate Assistant will develop promotional material toward the mission of UK SPOT. This position will bring visibility to suicide prevention with the goal of reducing stigma associated with mental health. Marketing methods will include (but not limited to) Facebook, Twitter, Instagram, posters, media videos, and promotional items.

Efforts will be made to minimize staff turnover associated with the project. Those staff members directly employed with the project will receive a three percent pay increase at the completion of each year of employment, dependent on upon a positive performance evaluation

from supervising staff members. Further, two events will be held per year to thank community partners involved in the efforts of the suicide prevention intervention: a catered lunch will occur in an on-campus venue at the end of the fall semester, and a catered end-of-the-year celebratory event will be held at an off-campus venue. The events will also serve as an opportunity to reflect on the accomplishments of the prior year, review previously set goals, and identify key goals moving forward with the University.

References

1. NIMH. (2017, November). Suicide. Retrieved from https://www.nimh.nih.gov/health/statistics/suicide.shtml
2. Kessler, R., Berglund, P., Borges, G., Nock, M., & Wang, P. (2005). Trends in suicide ideation, plans, gestures, and attempts in the United States, 1990-1992 to 2001-2003. *JAMA, 293*(20), 2387-2495. doi:10.1001/jama.293.20.2487
3. Silverstein, B. (2002). Gender Differences in the Prevalence of Somatic Versus Pure Depression: A Replication. *American Journal of Psychiatry, 159*(6), 1051-1052. doi:10.1176/appi.ajp.159.6.1051
4. Riolo, S. A., Nguyen, T. A., Greden, J. F., & King, C. A. (2005). Prevalence of Depression by Race/Ethnicity: Findings From the National Health and Nutrition Examination Survey III. *American Journal of Public Health, 95*(6), 998-1000. doi:10.2105/ajph.2004.047225
5. Substance Abuse and Mental Health Services Administration, Results from the 2013 National Survey on Drug Use and Health: Mental Health Findings, NSDUH Series H-49, HHS Publication No. (SMA) 14-4887. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2014.
6. Healthy People 2020 [Internet]. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion.
7. Center for Disease Control and Prevention. *WISQARS leading cause of death reports,* 2014 [cited 2015 April 13]; available from: http//www.cdc.gov/injury/wisqars/leadingcause.html
8. Schrijvers, D. L., Bollen, J., & Sabbe, B. G. (2012). The gender paradox in suicidal behavior and its impact on the suicidal process. *Journal of Affective Disorders, 138*(1-2), 19-26. doi:10.1016/j.jad.2011.03.050
9. Office of Suicide Prevention. Suicide Among Veterans and Other Americans 2001–2014. (2016). *US Department of Veterans Affairs*.
10. Marshal, M.P., Dietz, L.J., Friedman, M.S., Stall, R., Smith, H.A., McGinley, J. Thoma, B.C., Murray, P.J., D'Augelli, A.R., & Brent, D.A. (2011). Suicidality and depression disparities between sexual minority and heterosexual youth: a meta-analytic review. Journal of Adolescent Health, 49(2), 115-123.
11. Hatzenbuehler, ML; et al. (Feb 2014). "Structural stigma and all-cause mortality in sexual minority populations". *Soc Sci Med*. 103: 33–41.
12. Gould, M.A., et al., *Youth suicide risk and preventative interventions: a review of the past 10 years*. Journal of the American Academy of Child and Adolescent Psychiatry, 2003. **42**(4): p 386-405
13. Drum, D.J., et al., *New Data on the Nature of Suicidal Crises in College Students: Shifting the Paradigm.* Professional Psychology-Research and Practice, 2009. **40**(3): p. 213-222.

14. Joiner, T. (2007). *Why people die by suicide*. Cambridge, MA: Harvard University Press.
15. Albright, G., Himmel, J., Goldman, R., & Shockley, K. (2011). At-Risk for University Students: On-line interactive gatekeeper training simulation for identification and referral of students exhibiting signs of psychological distress.
16. Bartgis, J. and G. Albright, *Online role-play simulations with emotionally responsive avatars for the early detection of native youth sychological distress, including depression and suicidal ideation.* American Indian and Alaska Native mental health research, 2016. **23**(2):p. 1-27.
17. Pittman, L. (2008). *University belonging, friendship quality, and psychological adjustment during the transition to college*. Journal of Experimental Education., **76**(4), 343

Appendices

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2. **LOGIC MODEL – page 41**
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APPENDIX 1: BUDGET JUSTIFICATION

Project Title: University of Kentucky Comprehensive Suicide Prevention Program

Time Period: 8/01/2018 - 7/30-2021

A. Overall Budget

Category	Year 1	Year 2	Year 3
Salaries and Fringe	$327,251	$337,069	$347,181
Program Expenses	$88,180	$88,180	$88,180
Travel Expenses	$1,500	$3,500	$3,500
Other	$31,350	$29,600	$33,350
Total	**$448,281**	**$458,349**	**$472,211**

B. Salaries and Wages

Year 1

	Annual Salary	% FTE	Salary Requested	Fringe Requested	Total Requested
Principal Investigator, Nichole Henry, PhD	$117,000	15%	$17,550	$4,388	$21,938
Suicide Prevention Coordinator, Edward Gonzales, MSW	$65,000	100%	$65,000	$16,250	$81,250
Graduate Research Assistant, TBD	$16,000	100%	$16,000	$4,000	$20,000
Staff Psychologist 1, TBD, PhD	$80,000	100%	$80,000	$20,000	$100,000
Staff Psychologist 2, TBD, PhD	$80,000	100%	$80,000	$20,000	$100,000
Biostatistician, Leslie Knope, MPH	$65,000	*5%*	$3,250	$813	$4,063
Total Personnel			**$261,800**	**$65,451**	**$327,251**

Year 2

	Annual Salary	% FTE	Salary Requested	Fringe Requested	Total Requested
Principal Investigator, Nichole Henry, PhD	$120,510	15%	$18,076	$4,520	$22,596
Suicide Prevention Coordinator, Edward Gonzales, MSW	$66,950	100%	$66,950	$16,738	$83,688
Graduate Research Assistant, TBD	$16,480	100%	$16,480	$4,120	$20,600
Staff Psychologist 1, TBD, PhD	$82,400	100%	$82,400	$20,600	$103,000
Staff Psychologist 2, TBD, PhD	$82,400	100%	$82,400	$20,600	$103,000
Biostatistician, Leslie Knope, MPH	$66,950	*5%*	$3,348	$837	$4,185
Total Personnel			**$269,654**	**$67,415**	**$337,069**

Year 3

	Annual Salary	% FTE	Salary Requested	Fringe Requested	Total Requested
Principal Investigator, Nichole Henry, PhD	$124,125	15%	$18,619	$4,655	$23,274
Suicide Prevention Coordinator, Edward Gonzales, MSW	$68,959	100%	$68,959	$17,240	$86,199

Graduate Research Assistant, TBD	$16,974	100%	$16,974	$4,244	$21,218
Staff Psychologist 1, TBD, PhD	$84,872	100%	$84,872	$21,218	$106,090
Staff Psychologist 2, TBD, PhD	$84,872	100%	$84,872	$21,218	$106,090
Biostatistician, Leslie Knope, MPH	$68,959	*5%*	$3,448	$862	$4,310
Total Personnel			**$277,744**	**$69,437**	**$347,181**

Nichole Henry, PhD, Principal Investigator (15%). The Director of the Counseling Center, Dr. Nichole Henry, will serve as the Principal Investigator, and will directly supervise the Suicide Prevention Coordinator. Dr. Henry has supervised the University of Kentucky Counseling Center for five years, and has extensive experience with large scale programming and mental health research initiatives. She will meet regularly with the Suicide Prevention Coordinator to review rollout of the *Kognito* program and associated suicide prevention efforts, and be responsible for publication efforts, dissemination of results, and academic presentations.

Edward Gonzales, MSW, LCSW, Suicide Prevention Coordinator (100%). Edward Gonzales will serve as the Suicide Prevention Coordinator and Project Coordinator for the *Kognito* program and associated suicide prevention initiatives. Mr. Gonzales has worked with the University of Kentucky Counseling Center for two years coordinating suicide prevention efforts. Prior to his time at the University of Kentucky, he spent five years as the Suicide Prevention Coordinator with the Veteran's Health Association in Louisville, Kentucky. Mr. Gonzales will be the lead manager for the project. He will oversee daily operations of the project, lead data collection, coordinate communication between University of Kentucky entities, and facilitate UK SPOT meetings. He will be the lead liaison for suicide consultation matters, oversee continued education training regarding suicide at UK, and lead supplemental suicide prevention efforts such as QPR and mindfulness trainings.

Graduate Research Assistant, TBD. (100%). The Graduate Research Assistant will be overseen by the Suicide Prevention Coordinator, and work to supplement the efforts during the grant period. This individual will be a graduate student within the field of psychology, public health, or social work. S/he will spend 20 hours a week (100% effort of a graduate assistant) supporting the project endeavors. S/he will coordinate training schedules for continued education

regarding suicide at the university. S/he will help to collect data for the project, and assist in interpreting the results. S/he will oversee all marketing efforts, including but not limited to posters, emails, and social media (Facebook, Instagram, Twitter, etc.).

Staff Psychologists, PhD, (100%). Two additional staff psychologists will be hired within the University of Kentucky Counseling Center to increase capacity for counseling services. Both individuals will be licensed psychologists with experience in higher education. Services provided will include but not be limited to: individual counseling, group counseling, wellness workshops, assessment and testing services, outreach efforts, and consultation services.

Leslie Knope, MPH, Biostatistician (5%). Leslie Knope is a biostatistician within the University of Kentucky College of Public Health. 5% of her time will be dedicated to reviewing, collecting, and assessing programmatic data associated with the *Kognito* program and relevant assessment activities. She will complete both quantitative and qualitative data assessment for the program.

C. Program Expenses

***Kognito* Program Fees**	**Year 1**	**Year 2**	**Year 3**
At-Risk for University Faculty and Staff	$25,320	$25,320	$25,320
At-Risk for University Students	$32,160	$32,160	$32,160
LGBTQ on Campus for Students	$19,320	$19,320	$19,320
Veterans on Campus: Peer Program	$10,380	$10,380	$10,380
At-Risk in Primary Care	$1,000	$1,000	$1,000
Total	**$88,180**	**$88,180**	**$88,180**

***Kognito* Program Fees.** Program fees listed cover the cost of each simulation based on a tiered pricing model determined by the enrollment size of the institution. The license will make the program available to all relevant end users including students, faculty, staff, and student health employees. Fees include technical support through the *Kognito* program and evaluation survey resources.

D. Travel

Travel Description	Year 1	Year 2	Year 3
Project Director Travel Fees	$1,500	$1,500	$1,500
Staff Member 1 - Regional Training Fees	-	$1,000	$1,000
Staff Member 1 - Regional Training Fees	-	$1,000	$1,000
Total	**$1,500**	**$3,500**	**$3,500**

Travel Expenses. Travel expenses have been allocated to allow for one staff member to attend an annual Project Director's Meeting in Washington DC during all three years of the grant period, as well as two staff members to attend Regional Training during years 2-3.

E. Other

Description	Year 1	Year 2	Year 3
Tuition	$25,000	$26,000	$27,000
Marketing Fund	$1,000	$1,000	$1,000
Focus Group Incentive-Coffee Gift Cards	$750	-	$750
Focus Group Lunch	$2,000	-	$2,000
Fall Celebration Lunch	$600	$600	$600
Spring Celebratory Dinner	$2,000	$2,000	$2,000
Total	**$31,350**	**$29,600**	**$33,350**

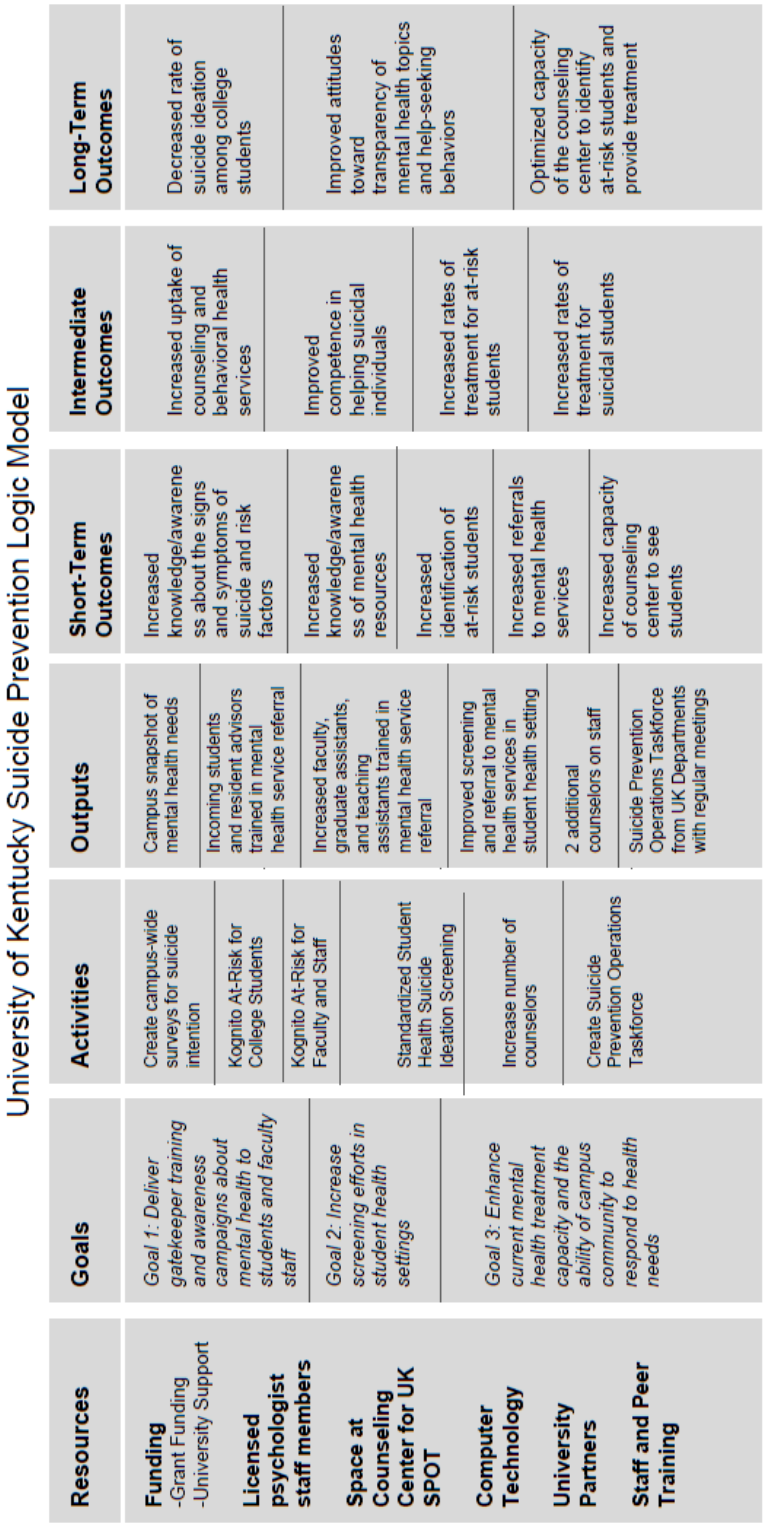
Tuition. Tuition is requested for the graduate assistant in accordance with the University of Kentucky's policy for tuition remission.

Marketing Fund. Funds will be dedicated toward supplemental marketing for the suicide prevention efforts during the grant period. Funds will be dedicated toward print material, including printed letters, posters, and flyers. Additionally, funds will be dedicated toward digital marketing tools such as video and social media.

Focus Group Incentives/Lunch. Funds will be dedicated toward focus group incentives in years 1 and 3. These incentives will help to gather a qualitative snapshot of mental health resource knowledge, skills, and attitudes within the University of Kentucky.

Celebratory Lunch/Dinner. Funds will be dedicated toward celebration efforts in order to increase moral and reduce turnover associated with the program. Additionally, this time will be used for strategic planning and group process evaluation among UK SPOT members.

APPENDIX 2: LOGIC MODEL



APPENDIX 3: GANTT CHART

Task	Y1 Q1	Y1 Q2	Y1 Q3	Y1 Q4	Y2 Q1	Y2 Q2	Y2 Q3	Y2 Q4	Y3 Q1	Y3 Q2	Y3 Q3	Y3 Q4
Finalize questionnaire and obtain IRB approvals	X											
Create stratified random sampling of undergraduate students for survey	X											
Create and send mental health needs assessment	X				X				X			
Add SBQ-R questions to CATS survey			X	X			X	X			X	X
Create focus groups to determine culture toward mental health on UK campus	X	X									X	X
Administer *Kognito* Interventions	X				X				X			
Implement depression screening in Student Health Clinic	X	X	X	X	X	X	X	X	X	X	X	X
Conduct mental health/SPCE training with Student Clinic Staff			X		X		X		X		X	
Conduct mental health/SPCE training with Residence Hall Staff			X		X		X		X		X	
Conduct mental health/SPCE training with Sorority/Fraternity life			X		X		X		X		X	
Conduct mental health/SPCE training with Veteran Student Services			X		X		X		X		X	
Collect and analyze results data				X		X		X		x		X
Perform final analyses												X
Presentations at national conferences									X	X	X	X
Preparation of manuscripts											X	X

APPENDIX 4: PARTNERSHIPS AND COLLABORATIONS EXPANSION

Organization	Description	Role in Intervention
UK Counseling and Testing Center	The UK Counseling and Testing Center focuses on providing a welcoming and inclusive environment, where students can express feelings and thoughts they may not wish to share with family and/or friends. Services are organized within short-term therapy sessions to any fee-paying student who is currently enrolled in at least 6 credit hours at the university. Therapy options include individual, couple, career counseling, groups/workshops, and outreach programming. The UKCC has been awarded the prestigious JedCampus Seal by the Jed foundation, a national initiative focused on enhancing mental health and suicide prevention on college campuses. Suicide prevention techniques are taught through this department to staff, faculty and students, following the QPR (Question, Persuade, Refer) philosophy for giving emergent aid to high-risk individuals.	• Oversight of the Suicide Prevention Intervention Efforts • Implementation of *Kognito* program • Provision of counseling services • Provision of additional suicide prevention trainings
University Health Services –Primary Care and Behavioral Health	University Health Services (UHS) services for University of Kentucky Students. The clinic sees students for primary care, women's health, nursing, and behavioral health services. Behavioral Health offers a variety of mental health and psychiatric services ranging from	• Increased screening efforts • Referral of primary care to counseling

	initial consultations of acute/chronic disorders to maintenance of pre-existing chronic conditions. For extreme conditions, following the initial consultation, UKBH will refer the patient to an appropriate community resource. All services are provided for free or at very low cost to any student who has paid the University Health Fee. 25 providers work in coordination with the University Health Services.	or behavioral health services • Provision of behavioral and mental health services
College of Public Health	The College of Public Health is dedicated to population-based approaches to improving the health of people in the Commonwealth of Kentucky and beyond. The academic departments represented in the college include the Departments of Biostatistics, Epidemiology, Gerontology, Health Behavior, Health Management and Policy, and Environmental Health. The college has 73 full-time and 32 part-time faculty members. In FY 2015, the College received nearly $48 million in new sponsored project awards and research funding.	• Analysis of survey data collected and production of data reports • Guidance on intervention best practices • Collaboration on media initiatives
College of Social Work	The UK College of Social Work is currently focusing major research effort into areas including suicide prevention, LGBTQ well-being, violence and victimization, behavioral health, as well as other major topics. Grants awarded through university funds and the HRSA are providing for these programs to investigate and	• Guidance on intervention best practices • Collaboration on media initiatives

	discover major trends among at risk populations and suicide survivors.	
Center of Student Involvement	The Office of Student Involvement, a department within the Office of Student Affairs, is responsible for advising and assisting with student led campus wide programming, leadership development and diversity education initiatives. More than 350 student organizations are coordinated and advised through the office including Wildcat Student TV, Student Activities Board, Student Government Association, Student Organizations Center, Center for Community Outreach, and WRFL 88.1 FM. Students have the opportunity to engage with the University and have the opportunity for numerous leadership and diversity focused trainings.	• Assistance in gatekeeping training for student leaders • Collaboration on media initiatives
Residence Life	The focus of Residence Life is to create living environments that support the educational mission of the University. This includes addressing issues of safety and security, the Living Learning Program, student leadership development and involvement, emergency management, and inclusion. Residence Life consists of a 7-member leadership team, 4 Area Coordinators, 12 Resident Directors, and over 300 student staff, including Graduate Resident Directors, Resident Advisors, and Night Desk Clerks.	• Assistance in gatekeeper training for all Residence Life staff, including Resident Advisors • Collaboration on media initiatives

Office of LGBTQ* Resources	The Office of LGBTQ* Resources at the UK is the central hub for accessing information, groups, and services related to diverse sexualities and gender identities. We are a campus-wide office that supports the Office of the Vice President for Institutional Diversity in making sure that our community is a welcoming, safe, and supportive place for all students, faculty, and staff. We also seek to connect and collaborate with LGBTQ* community groups and friends across the City of Lexington and the Commonwealth of Kentucky.	• Targeted intervention efforts to sexual minority college groups • Collaboration on media initiatives
UK Veterans Resource Center	The UK Veterans Resource Center was established to provide support of UK's military and veteran population. The Center works to navigate through GI Bills and VA educational program procedures to obtain resources that promote success in the university atmosphere, including health care and mental health services. The Center advocates on behalf of student veterans at the University. The Center has two student groups: The University of Kentucky Student Veterans Association (UKSVA) and Honoring Our Military Everywhere (HOME).	• Targeted intervention efforts to student military veterans • Collaboration on media initiatives
Office of Faculty Advancement and Institutional Effectiveness	The Office for Faculty Advancement and Institutional Effectiveness promotes academic and administrative excellence by working collaboratively with members of the University community and external stakeholders through	• Assistance in *Kognito* program implementation among UK faculty members

	professional development, assessment, and accreditation and compliance activities.	
UK WISE: Wellness Initiative for Student Empowerment	The UK Wellness Initiative for Student Empowerment, a program within the Office of Student Development, works to maintain a healthy and safe environment for students. WISE administers the AlcoholEdu program for all students. The Student Wellness Ambassadors' mission is to inform students on aspects of wellness such as alcohol, drugs, mental health, general well-being, and financial wellness. The highly trained students organize educational programs and events throughout campus and the community.	• Advisement on *Kognito* program administration • Collaboration on student programing