

**Evaluation of a Universal Suicide Risk Screening Program in a Large Non-Profit Health
System**

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October 21, 2022

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Abstract

Introduction: In 2019, the Joint Commission updated National Patient Safety Goal 15.01.01, which details regulations for the prevention of suicide in the hospital setting. Specifically, the “elements of performance” include a mandate for hospitals to screen individuals presenting with behavioral health conditions for suicide risk using an evidence-based screening tool. While this update represented an improvement in suicide safety, hospitals may achieve compliance with the standard while failing to identify all individuals at risk for suicide. We evaluated the implementation of a project regarding this mandate in a large non-profit health system that deployed a Universal Suicide Risk Screening Program across 22 facilities. **Method:** Program leaders conducted a retrospective evaluation, using pre-intervention and post-intervention data, to determine compliance with the program’s screening requirements and to assess the program’s effectiveness in detecting high suicide risk compared to “care as usual.” **Results:** During a 2-year post-implementation period, the health system achieved 94.56% compliance with universal suicide risk screening across nearly 1.3 million unique patient encounters. Analysis revealed a statistically significant increase in the percentage of total encounters determined to be high risk for suicide in the post-intervention period compared to the pre-intervention cohort. Post-intervention, individuals presenting with non-behavioral health conditions accounted for 23.88% of the encounters determined to be at high risk for suicide. **Discussion:** The first step in preventing in-hospital suicides is identifying individuals at risk for suicide. Widespread compliance with universal screening for suicide risk was achieved and sustained in a diverse set of hospitals and care settings. Universal screening can be an effective strategy to detect high suicide risk, especially in individuals presenting with non-behavioral health complaints.

Keywords: Suicide Risk Screening, universal screening, suicide prevention

Evaluation of a Universal Suicide Risk Screening Program in a Large Non-Profit Health System

Suicide has emerged as a national health crisis. According to the Centers for Disease Control and Prevention (2021a), suicide ranks as the 10th leading cause of death in the U.S. In younger Americans aged 10 to 19, suicide is the third leading cause of death (Torok et al., 2019). While the science of suicide prevention has evolved over the past 20 years, practices and procedures designed to prevent suicides in the hospital setting have not kept pace with the evidence (Kene et al., 2019). Williams et al. (2018) report that between 48.5 and 64.9 individuals die by suicide annually while hospitalized. Given that in-hospital suicides are considered a preventable “never” event, improving care for hospitalized patients at risk for suicide is an urgent need (Williams et al., 2018).

The burden of mental illness in the U.S. has come into sharp focus in the wake of the Covid-19 pandemic. Approximately 10% of the illness burden is due to mental illness and substance use disorders (Kohn et al., 2018). Each year, 1 in 5 Americans experiences a diagnosable mental illness, with up to 70% of these individuals failing to seek treatment (Johnson, 2021). The consequences of undertreatment are, perhaps, felt most acutely by individuals experiencing suicidal ideations. Between 1999 and 2019, the rate of suicides in the U.S. rose by 33% (Stone et al., 2021). According to the CDC (2021b), 9.8 million Americans contemplate suicide each year, 2.8 million Americans devise a plan to die by suicide each year, and 1.3 million Americans progress to a suicide attempt, with an overall suicide rate of 13.5 per 100,000 American in 2020 (CDC, 2021c).

Through early identification of individuals at risk for suicide, healthcare professionals are well-positioned to deploy interventions to reduce suicide mortality (Ahmedani et al., 2014). In

fact, early detection and disease prevention are staples of modern healthcare for a variety of health conditions (Conejo, 2000). The U.S. Centers for Medicare and Medicaid Services (n.d.) recommends preventative screening for conditions ranging from sexually transmitted diseases to cancer, and hospitals often deploy routine screenings to detect illness and the presence of psychosocial risk factors. For instance, The Joint Commission requires hospitals to screen for conditions such as nutrition deficits, intimate partner violence, and dysphagia (Charney, 2008; TJC, 2022; DeBoer et al., 2013; Lakshminarayan et al., 2010), but screenings for mental health conditions, such as depression, are more commonplace in other healthcare settings, such as primary care (Costantini et al., 2021). In 2007, The Joint Commission, to establish standards for suicide risk screening in the hospital setting, declared suicide prevention to be National Patient Safety Goal (“Suicide Prevention,” 2019). For the first time, hospitals were required by The Joint Commission to screen individuals presenting to the Emergency Department for suicide risk when the primary reason for seeking care was a behavioral health condition (“Joint Commissions 2007 Safety Goals”, 2006). Evidence suggests that healthcare providers are in a prime position to detect suicide risk, as Ahmedani et al. (2014) report that up to 83% of individuals who die by suicide interacted with a healthcare provider within the year before their death. Additionally, Fontanella et al. (2017) report that 50% of suicide deaths were preceded by a physician visit within 30 days of death, and 27% of individuals who died by suicide saw a healthcare provider within a week of death. Given these data, healthcare providers may be among the last lines of defense against suicide deaths.

Problem Statement

To enhance safety for suicidal patients, The Joint Commission has deemed suicide prevention to be a National Patient Safety Goal (NPSG) and, in 2019, updated its regulations for

suicide prevention in the hospital setting. With this update, NPSG 15.01.01 EP 2 required general hospitals (i.e., non-psychiatric hospitals) to screen all individuals ≥ 12 years of age presenting with a behavioral health condition as their primary reason for care *with a research-validated suicide risk screening tool* (TJC, 2019). While the new performance elements represent an iterative improvement in the care of individuals at risk for suicide, adherence to this standard may fail to detect the risk of suicide in patients presenting with non-behavioral health conditions and in departments where screening is not typically deployed (e.g., outside of the emergency department setting). An alternative approach to detecting suicide risk is universal screening for suicide risk (i.e., screening every individual presenting for care regardless of chief complaint) for all patient encounters, which is an evidence-based approach (Zaleski et al., 2018).

Organizational “Gap” Analysis

A large non-profit health system operating an array of facilities, including acute care hospitals, surgery centers, and free-standing Emergency Departments, had a longstanding policy of performing suicide risk screening on individuals presenting with psychiatric complaints. This “care as usual” approach aligned with regulatory requirements. However, despite this practice, a review of the health system’s incident reporting database indicated that not every patient at high risk for suicide had been identified by screening. This failure to detect suicide risk left patients and the organization vulnerable to in-hospital suicides – and may have led to a number of patients at high risk for suicide who might not have been identified as such. The system’s Nurse Executive Team, a council of Chief Nursing Officers from the health system’s various entities, determined that identification of suicide risk was unreliable when only screening individuals presenting with a behavioral health condition and when screening only occurs in the Emergency Department setting. In response, in November 2019, the health system implemented a

mandatory Universal Suicide Risk Screening Program (USRSP) for all hospital patient encounters.

Shortly after the deployment of the USRSP, the Covid-19 pandemic disrupted hospitals and society at large. Thus, despite more than two years since the program's initiation, program outcomes remained unexamined. Specifically, there was no formal study of compliance with universal screening. Also, stakeholders did not have insight into whether screening individuals with non-behavioral health conditions and in non-Emergency Department units (who were added to those screened with the newly implemented USRSP) resulted in greater identification of suicide risk. The health system needed a formal program evaluation to ensure the USRSP's goals were met. Once completed, the evaluation could serve as a basis for future improvement efforts.

Review of the Literature

To identify studies related to universal suicide risk screening, a review of relevant literature was conducted using the PubMed and CINAHL databases. Search terms included: "suicide risk screening," "suicide prevention," and "universal screening." The Boolean operator AND was used to connect these terms to the terms: "hospital," "emergency department," and "acute care setting" in various combinations. Searches using these parameters resulted in eight studies that reported the outcomes of universal suicide risk screening programs.

Boudreaux et al. (2016) conducted a time-phased study comparing "care as usual" to universal suicide risk screening and universal suicide risk screening *plus* intervention in the Emergency Department setting. Universal screening, compared to care as usual, resulted in a two-fold increase in patients identified as at risk for suicide (Boudreaux et al., 2016). In a study of universal screening of adolescents in the Urgent Care setting, two percent of the patients

screened as being at risk for suicide, with only seven percent of these patients having a chief complaint related to mental health (Patel et al., 2018). Hackfeld (2020) conducted a small study of universal suicide risk screening for adolescents presenting to a large urban pediatric Emergency. This study reported a 37% increase in patients identified as being at risk for suicide. A retrospective study completed in a pediatric emergency department revealed that 53% of the individuals who screened as being at risk for suicide presented with a chief complaint other than suicidal ideations (Ballard et al., 2017). DeVylder et al. (2020) reported doubling the identification of suicide risk using a universal screening strategy, compared to care as usual, in a pediatric Emergency Department. Roaten et al. (2018) implemented universal suicide risk screening in care areas including the Emergency Department, outpatient clinics, and inpatient units. Suicide risk was identified in 6.3% of Emergency Department encounters, 2.1% of outpatient clinic encounters, and 1.6% of inpatient unit encounters.

An often-recited barrier to universal suicide risk screening programs is the perceived time it takes to complete screening for every patient. However, despite initial concerns expressed by healthcare workers at a large tertiary hospital, universal screening was not a burden on the system (Roaten et al., 2018). Additionally, Boudreaux et al. (2016) reported 84% compliance with universal screening in the Emergency Department setting. Another study of hospitalized patients reported 94.3% compliance with universal screening (Snyder et al., 2020). Stuck et al. (2017) reported 92% compliance with universal suicide risk screening in a large urban Emergency Department. Therefore, these studies suggest that universal screening is feasible across multiple care settings.

Evidence-based Practice: Verification of Chosen Option

The Emergency Nurses Association, in its Clinical Practice Guideline titled “Synopsis:

Suicide Risk Assessment,” gives its highest level of recommendation to suicide risk screening for “all Emergency Department patients” (Zaleski et al., 2018). The Joint Commission’s National Patient Safety Goals, as of 2019, require hospitals to screen for suicide risk in individuals presenting with psychiatric complaints (TJC, 2019). However, this requirement falls short of mandating *universal* screening for suicide risk, which has been demonstrated to improve the identification of suicidal patients in multiple practice settings (Boudreaux et al., 2016; Hackfeld, 2020; DeVlyder et al., 2020; Ballard et al., 2017). This gap between the evidence supporting universal suicide risk screening and applicable regulations for the care of suicidal individuals presents an opportunity to evaluate which approach is more effective in identifying individuals at high risk for suicide. Thus, our clinical question is: For individuals seeking care in an acute care (non-psychiatric) hospital (P), does universal screening for suicide risk (I), as opposed to only screening individuals presenting with a psychiatric complaint (C), improve identification of individuals at high risk for suicide (O).

Theoretical Framework

Butts and Rich (2018) describe theory as being “intricately tied” to practice. Yet, significant lags in translating conceptual models, theory, and research into practice are prevalent in healthcare (Morris et al., 2011). This delay is particularly problematic for healthcare consumers experiencing thoughts of suicide because the body of literature describing how to screen for, assess, treat, and prevent suicide has grown considerably over the past 10 – 20 years (Kene et al., 2019). One could argue that stigma and discrimination toward the mentally ill create additional barriers to receiving evidence-based care. Individuals with mental illness and the nurses caring for this population of patients report emotional distress after an encounter in a healthcare setting (Tyerman et al., 2021). Emergency Department staff have described caring for

the mentally ill as an “occupational risk” due to the perceived futility of treating this population, the risk of litigation, and the emotional trauma when a patient dies by suicide (Kene et al., 2019). Nurses in non-behavioral health settings struggle with fundamental aspects of caring for the mentally ill, such as effectively asking questions about suicide risk (Inman et al., 2019). Given nurses’ attitudes toward treating the mentally ill, it seems likely that a system that enables nurses to determine which individuals require suicide risk screening, as opposed to universal screening, will be unreliable in identifying every patient at risk for suicide.

Theory leads clinicians to challenge current conditions and provides frameworks through which clinical questions can be considered and answered (Butts & Rich, 2018). Of course, suicide risk screening is the first step in preventing in-hospital suicides. Individuals identified to be at risk require further intervention to ensure safety while in the hospital setting. To that end, we can better understand the entire continuum of nursing care provided to suicidal patients through the lens of Duffy’s Quality Caring Model (QCM). The core assertion of the QCM is that caring relationships between nurses and their patients, when intentionally established through what Duffy described as “caring factors,” results in improved health outcomes (Duffy & Hoskins, 2003).

Given that patients experiencing thoughts of suicide believe their life to be hopeless and experience a loss of dignity as they decide between life and death, caring relationships are essential when treating this population (Hultsjö et al., 2019). The Quality Caring Model describes eight caring factors: basic human needs, human respect, attentive reassurance, affirming unique meanings, encouraging manner, mutual problem solving, healing environments, and affiliation needs (Duffy, 2013). Within the structure of the clinical encounter- the suicidal patient and their support person(s), clinical staff (including nurses), and the system in which care

is being rendered (including the electronic health record, facility policies and procedures, and the environment of care)- each of the eight caring factors can effectively guide the actions of nurses.

Multiple caring factors support screening for suicide risk. Nurses should consider their patient's **basic human needs**, such as the need for safety, belonging, and self-esteem. The act of asking about suicidal thoughts introduces the possibility of a caring relationship between the nurse and the suicidal patient. **Human respect** is shown toward the patient when we move beyond physical ailments and inquire about psychological trauma. The nurse, in essence, respects the whole person through the delivery of holistic care. Discussions of traumatic events or painful thoughts require nurses to use **attentive reassurance** to ensure that they are fully present in the moment.

A full suicide risk assessment, performed by a mental health clinician, is also expressed through the QCM's caring factors. Mental health staff, including psychiatric mental health nurses, will need to demonstrate the same **attentive reassurance** described above. Additionally, **affirming unique meanings** is crucial in determining the relevance of risk and protective factors. Caregivers, guided by theory, should recognize that each patient is a blend of their previous experiences and may express trauma in unique ways.

Once patients are verified as being at risk for suicide, a cascade of additional interventions will ensure safety for the duration of the hospital stay. These interventions, too, can be guided by the QCM. In the absence of a ligature-free care setting, suicidal patients require 1:1 continuous observation. This dedication of resources honors the patient's worth and is consistent with **human respect**. Continuous observation of suicidal patients allows nurses to utilize therapeutic communication and further establish a caring relationship. The caring factors **encouraging manner** and **mutual problem solving** should guide the care team's actions during

this valuable one-on-one time. In addition to continuous observation, nurses modify the care environment by reducing or eliminating self-harm hazards. This action honors the **basic human need** for safety and promotes a **healing environment**. Finally, staff will collaborate with the patient before discharge on a safety plan. This plan, which should be accessible to the patient after discharge, helps the patient identify triggers of suicidal thoughts. The safety plan also establishes concrete actions and a list of resources to employ when the patient feels a psychiatric crisis is imminent. Establishing a safety plan helps the nurse and patient engage in **mutual problem solving**. Safety plans also take advantage of the patient's **affiliation needs** by involving the patient's family and friends in the ongoing mission to keep the patient safe.

To the extent that the USRSP evaluation identifies failures to screen for suicide risk, the Theory of Planned Behavior (TPB) may be a useful lens through which to understand the gaps in care. TPB was initially developed to understand better what motivates behavior. Specifically, TPB explores how an individual's intentions drive behavior (Cooke & French, 2008). According to this theory, an individual's intentions are guided by behavioral beliefs, normative beliefs, and control beliefs (Hanbury et al., 2009). Applied to the intervention of suicide risk screening, "behavioral beliefs" represent the nurse's belief about the expected outcome of conducting the screening. For instance, a strong belief that the screening might detect suicidal ideations and lead to treatment would positively influence the nurse's willingness to conduct screening on all patients. "Normative beliefs" represent what the nurse believes is the established norm on their unit related to suicide risk screening. If the nurse believes that it is standard for all nurses in their department to complete the screening, this belief will lead to compliance with the screening protocol. "Control beliefs" represent the nurse's beliefs about factors that either facilitate or inhibit compliance with suicide risk screening multiplied by the perceived risk of compliance.

For example, if a nurse believes frequent interruptions prevent them from completing screening, their intent to screen may decrease. While TPB was not originally developed to address failures to implement suicide risk screening, the theory provides a helpful framework for understanding failures to follow this evidence-based intervention. In fact, TPB has been utilized to help understand non-adherence to established health protocols, including screening for mental illness (Riggs, 2017; Hanbury et al., 2009; Aldrich, 2015; Kuhlman et al., 2017).

TPB has, indeed, been successfully applied to the behavior of suicide risk screening in both healthcare professionals and laypeople. For example, Riggs (2017) studied how TPB applied to Psychiatric Mental Health Nurse Practitioner (PMHNP) adherence to suicide risk screening. This study revealed that, while attitudes toward screening were positive, a lack of knowledge about suicide risk screening tools led to inconsistent implementation. Based on this result, interventions were developed to educate the PHMNPs on the screening tools utilized in their setting. Also, Hanbury et al. (2009) applied TPB in a study to determine compliance with a suicide prevention program among community health professionals. This study revealed that subject norms, or beliefs about whether peers were adhering to the program, predicted the clinician's level of compliance. These two studies, utilizing TPB in college-aged individuals, demonstrated that education programs on suicide risk prevention increased knowledge and perceived self-efficacy in intervening when suicide risk was detected. In addition, this education led to increased reports of suicide risk in peers and increased referrals for mental health treatment (Aldrich, 2015; Kuhlman et al., 2017).

Goals, Objectives, and Expected Outcomes

The principal investigator's goal was to evaluate the deployment and effectiveness of the Universal Suicide Risk Screening Program. Objectives included:

- Determine if adherence to the system-wide universal screening program reached the stated stakeholder goal of $\geq 80\%$ compliance with screening. Compliance was measured by the number of encounters with documented suicide risk screening divided by the total number of encounters.
- Evaluate if the program detected suicide risk in individuals who would likely not have been screened using a “care as usual” approach (i.e., high suicide risk in encounters with a non-behavioral health condition listed as the chief complaint or high suicide risk detected in non-Emergency Department encounters)

Before this formal evaluation, program stakeholders had access to preliminary data suggesting that program compliance exceeded the 80% target, but an exact compliance rate had not been quantified. Based on this knowledge, program evaluators anticipated finding widespread compliance, especially across various healthcare settings (e.g., emergency department vs. surgery) with universal suicide risk screening. Additionally, stakeholders expected to discover, based on anecdotal incidents relayed by colleagues within the health system, that universal screening detected high suicide risk in individuals presenting with non-behavioral health conditions (who were previously not screened for suicide risk).

Methods

The plan to implement universal screening for suicide risk across the health system originated with stakeholders in the Behavioral Health service line. Recognizing that deployment of universal screening would further align the system’s suicide prevention efforts with the Zero Suicide Institute (2022), Behavioral Health service line leadership (including the principal investigator who had recently been hired as the system’s first Chief Nursing Officer of Behavioral Health), proposed a universal screening approach to the Nurse Executive Team.

Initially, the proposal was to implement universal screening for all Emergency Department encounters. Upon reviewing suicide-related safety events that occurred in recent years, the Nurse Executive Team approved universal suicide risk screening for all Emergency Department encounters, Day Surgery encounters, direct admissions, and inbound transfers from other external hospitals. With the support of the health system's Chief Nurse Executive and Chief Nursing Officers from across the organization, the eventual approval of policies to support this practice change was made. In addition to policy development, nursing informaticists modified the system's electronic health record (Epic) to include the chosen research-validated suicide risk screening tool- the Columbia Suicide Severity Rating Scale (C-SSRS). The C-SSRS was selected for two primary reasons: 1. The C-SSRS was recommended by the Zero Suicide Initiative and was included on The Joint Commission's list of approved screening tools, and 2. The C-SSRS is validated for individuals over the age of eleven, which aligns with The Joint Commission's age requirements for NPSG 15.01.01 EP2 (TJC, 2020a). One month before deployment, Behavioral Health educators, along with program stakeholders that included quality, risk, and leadership representatives, developed and distributed education for the system's nursing staff on the C-SSRS tool and the universal screening program. This education was deployed electronically using a learning management system while key messages were reinforced during routine staff meetings. Deployment of the training followed a similar format to other large-scale changes in nursing practice that had become commonplace across the health system through a program known as "Reliable Care Blueprinting."

Project Design

This retrospective program evaluation, using pre-intervention and post-intervention data, evaluated compliance with suicide risk screening as well as the efficacy of screening encounters

that would not otherwise be screened using the “care as usual” approach. The quantitative evaluation reported descriptive statistics from the one year before the USRSP deployment and two years after the implementation of the USRSP. Additionally, a chi-squared statistical analysis was used to determine if universal suicide risk screening produced a statically significant change in the percentage of encounters where high suicide risk was detected (pre-intervention vs. post-intervention cohorts).

When designing the program evaluation, the principal investigator made several critical decisions regarding project data which require further explanation. First, a key decision was related to which encounters would be included in the study, especially as the program evaluation was conceived approximately two years after the deployment of the USRSP. Specifically, stakeholders were concerned that the Covid-19 pandemic may have significantly reduced program compliance rates. Thus, with two years of post-implementation data available for analysis, evaluators decided to use this sizable dataset to evaluate whether Covid-19 affected compliance rates over time. Evaluators elected to analyze a one-year pre-implementation period to ensure an adequately sized dataset for this cohort.

Second, evaluators wished to analyze encounters with a behavioral health condition as the primary reason for seeking care. The “chief complaint” field lists the patient’s stated reason for seeking care within the electronic health record. For this reason, evaluators used the “chief complaint” to determine whether the individual presented with a behavioral health condition. While The Joint Commission requires suicide risk screening in encounters with a behavioral health chief complaint, NPSG 15.15.01 does not provide guidance about which chief complaints should be considered behavioral health conditions. After an extensive search, the principal investigator located a “sample policy” published by The Joint Commission to aid in compliance with NPSG 15.15.01 (TJC, 2020b) (see Appendix A). Chief complaints in this study were initially classified as “behavioral health” or “non-behavioral health” based on guidance from this sample policy. Upon further consideration, the principal investigator added an additional classification, “possible behavioral health,” to describe Chief Complaints, such as wrist laceration, hyperventilation, and carbon monoxide poisoning, which are suspicious for behavioral health conditions and suicide attempts. The goal of evaluators was to be conservative in classifying non-

behavioral health conditions.

Finally, program evaluators wanted to statistically validate changes in the percent of patients identified as high suicide risk in the pre-intervention and post-intervention cohorts; however, these cohorts were not equivalent. Before the implementation of the USRSP, suicide risk screening only occurred in Emergency Department encounters. The universal screening program, however, extended screening beyond the Emergency Department. Therefore, the non-Emergency Department encounters were removed from the post-implementation dataset to ensure equivalent cohorts. Subsequently, a random sample of 260,000 encounters from both the pre-implementation and post-implementation datasets was selected for chi-squared analysis (520,000 total encounters).

Project Site and Population

The USRSP was deployed across 22 facilities and affected the nursing practice of approximately 8,000 registered nurses. These facilities included 16 acute care hospitals, three free-standing Emergency Departments, a specialty heart-hospital, and two outpatient surgical centers. The acute care hospitals range from large urban hospitals (800-1,000 beds) to rural hospitals (~25 beds). The health system serves a growing metropolitan area of approximately eight million residents. The USRSP required suicide risk screening for all patients \geq age 12 entering the health system through the Emergency Department, Day Surgery, direct admission, and in-bound transfers.

Measurement

To assess the USRSP's outcomes, evaluators collected and analyzed pre-implementation and post-implementation data. Specifically, the following variables were evaluated:

- Pre-Intervention Data (one year prior to USRSP implementation)
 - Total number of encounters (all Emergency Department encounters)
 - Number of encounters with a documented suicide risk screening

- Percent of total encounters with a documented suicide risk screening
- Number of encounters with a behavioral health chief complaint
- Percent of total encounters with a behavioral health chief complaint
- Number of encounters determined to be high risk for suicide
- Percent of total encounters determined to be high risk for suicide
- Post-Intervention Data (two years after USRSP implementation)
 - Total number of encounters (Emergency Department and non-Emergency Department)
 - Number of encounters with a documented suicide risk screening
 - Percent of total encounters with a documented suicide risk screening (i.e., compliance rate with universal screening policy)
 - Percent of total Emergency Department encounters with a documented suicide risk screening
 - Percent of non-Emergency Department encounters with a documented suicide risk screening
 - Range of USRSP compliance among the acute care hospitals (lowest compliance percentage and highest compliance percentage)
 - Stratification of C-SSRS screening risk (no risk, low risk, moderate risk, high risk, unable to assess, and no screening conducted) by the percentage.
 - Number of encounters with a behavioral health chief complaint
 - Percent of total encounters with a behavioral health chief complaint
 - Number of encounters with a behavioral health chief complaint and a documented suicide risk screening

- Percent of encounters with a behavioral health chief complaint and a documented suicide risk screening (i.e., compliance with “care as usual” in the post-intervention cohort)
- Number of encounters determined to be high risk for suicide (total encounters, Emergency Department encounters, and non-Emergency Department encounters)
- Percent of encounters determined to be high risk for suicide (total encounters, Emergency Department encounters, and non-Emergency Department encounters)
- Percent of high risk encounters with a non-behavioral health chief complaint
- Sampled Dataset
 - Number and percentage of pre-intervention and post-intervention encounters
 - Number of encounters determined to be high risk for suicide in the pre-intervention and post-intervention cohorts
 - A chi-squared test comparing the percent of high suicide risk encounters in the pre-intervention vs. post-intervention cohorts

Data Collection Procedures

Data collection occurred in two stages: post-intervention and pre-intervention.

Pre-Intervention

Before the USRSP, suicide risk was only conducted in the Emergency Department; therefore, program evaluators requested and obtained all Emergency Department encounters for the 16 acute care hospitals and three free-standing emergency departments from November 14, 2018, through November 13, 2019. The health system’s Research Department provided the file

via an Excel document. After assigning each encounter a unique case number, all patient identifiers were removed from the spreadsheet leaving only the variables of interest (data of service, entity, chief complaint, and the suicide screening risk level (if screened)). This file was stored on a password-protected SharePoint site only accessible to study participants.

Post-Intervention

Post-intervention data included all health system encounters (Emergency Department, Day Surgery, direct admissions, and inbound transfers from external hospitals) from November 14, 2019 (the date of USRSP deployment) through November 13, 2021. These data were extracted from the health system's electronic health record using a Tableau dashboard explicitly built for evaluating the program. This dashboard, connected to the health system's data lake, allows users to slice data by several variables including, but not limited to, facility, care site, and suicide risk level as determined during the screening process. The post-implementation dataset was extracted into an Excel document by the principal investigator. The principal investigator assigned a unique case number to each encounter, after which the document was de-identified and stored along with the pre-intervention dataset.

Data Analysis

The principal investigator analyzed both the pre-intervention and post-intervention datasets using Excel (Microsoft). Variables of interest, including screening compliance, encounters with behavioral health chief complaints, and encounters determined to be high suicide risk were analyzed as descriptive data and reported as frequencies and percentages. The principal investigator used Excel to exclude non-Emergency Department encounters from the 260,000 encounter post-intervention sample. Additionally, Excel was used to randomly select pre-intervention and post-intervention encounters to be included in the statistical analysis.

Finally, a chi-squared test was used to determine if a statistically significance difference in the percentage of high suicide risk encounters exists between the pre-intervention and post-intervention periods. The chi-squared test was conducted using SPSS v26.

Cost-Benefit Analysis

Deaths by suicide place a significant financial burden on society, with an annual cost estimated to be \$95 billion annually in the U.S. (Shepard et al., 2016). The economic cost to the suicide victim and their surviving loved ones is primarily associated with the loss of lifetime earnings, which averages \$1.3 million per suicide event (Stone et al., 2017). While the cost of an in-hospital suicide event was not found in the literature, the financial impact from regulatory and legal action is almost certainly material. In addition to the financial cost, suicide places an emotional burden on the families of victims and the organization's caregivers.

Dunlap et al. (2019) estimate the cost of deploying universal suicide risk screening to be \$556 per month for an emergency department. While the health system had not attempted to calculate the cost of the system-wide USRSP, program stakeholders project the majority of upfront expense to be associated with the cost of training staff and programming of the electronic health record. Staffing patterns across the health system were not adjusted as part of the USRSP. With respect to time, suicide risk screening using the C-SSRS tool consists of two questions that take approximately 15-20 seconds for most encounters. Ultimately, the value of universal suicide risk screening is the lives saved by detecting suicide risk in patients who might not be screened using care as usual.

Timeline

The anticipated time for this DNP project was expected to be ten months. Planning for the project began in January 2022. An "exempt project" application was submitted to the health

system's Institutional Review Board (IRB) on March 14, 2022. Appendix B is the health system's IRB determination received on March 17, 2022. IRB application was submitted to the University of Alabama (UA) IRB on June 3, 2022. Appendix C is the UA IRB's determination letter received on June 21, 2022. Data collection and analysis for the project were conducted from July 2022 through September 2022. Dissemination of the project occurred on October 20, 2022.

Ethical Considerations/Protection of Human Subjects

IRB approval from the health system and UA was obtained before initiating the program evaluation. Appendix D demonstrates the health system's commitment to this DNP project. The primary risk to participants was the risk of a privacy breach. All project participants were protected by the Health Insurance Portability and Accountability Act (HIPAA) of 1996, which, among other guarantees, protects the privacy of patient health information. To mitigate this risk, evaluators de-identified all datasets used during the evaluation. Additionally, project files were stored on a discretionary access SharePoint site only accessible to the research team. The SharePoint site is hosted on the health system's secure, domestically located servers. All data were encrypted, and data loss prevention systems were in place.

Results

Evaluation of the Universal Suicide Risk Screening Program included analysis of 718,314 pre-intervention encounters, 1,292,113 post-intervention encounters, and a chi-squared test performed on a random sample of 520,000 encounters, equally divided among the pre-intervention and post-intervention datasets.

Pre-Intervention

Before implementing the USRSP on November 14, 2019, hospital policy required suicide risk screening for Emergency Department visits where a behavioral health condition was the primary reason for the encounter. During the year before implementation, there were 718,314 emergency department encounters throughout the health system. Suicide risk screening occurred in 17,085 of these encounters (2.38%). Emergency Department nursing staff screened 15,427 encounters, while another 1,658 encounters had suicide risk screening deferred to a Behavioral Health Crisis Clinician.

During the pre-intervention study period, 17,007 encounters had a behavioral health condition listed as the chief complaint (2.37% of the total encounters). Of all the suicide risk screenings conducted during the pre-intervention study period, 5,396 encounters identified high suicide risk. These high suicide risk encounters represented 0.75% of the total pre-intervention encounters.

Post-Intervention

During the two years after implementing the USRSP, the health system had 1,292,113 encounters that qualified for screening per health system policy. These encounters can be further subdivided into 1,205,830 Emergency Department encounters and 86,283 non-Emergency Department encounters. Nursing staff conducted suicide risk screening in 1,221,789 encounters for a program compliance rate of 94.56%. Compliance with screening remained above 90% across all entities, all settings (Emergency Department vs. non-Emergency Department), and throughout each “wave” of the Covid-19 pandemic for the duration of the post-intervention period. Appendix F demonstrates program compliance by month. Program compliance for Emergency Department and non-Emergency Department encounters was 94.8% and 91.16%,

respectively. Among the 16 acute care hospitals, the lowest compliance rate was 91.77% (126,905 encounters in the study period), while the highest compliance rate was 97.18% (82,709 encounters during the study period). Suicide risk stratification for all encounters is displayed in Table 1.

Table 1

Suicide Screening Risk Stratification (All Encounters)

Suicide Risk Level	Percentage
No Risk	91.27%
Low Risk	0.4%
Moderate Risk	1.0%
High Risk	0.89%
Unable to Assess	1.0%
Not Screened	5.44%

During the post-intervention study period, 33,943 encounters had a behavioral health chief complaint (2.63% of the total encounters). Suicide risk screening occurred in 96.13% of these encounters which required screening in the “care as usual” approach to risk detection. Screening revealed high suicide risk in 11,491 encounters. Emergency Department visits accounted for 11,423 of these high risk encounters. By contrast, only 68 encounters screened as high suicide risk in non-Emergency Department units (49 in Med/Surg or ICU, 10 in Labor & Delivery, 5 in Day Surgery, 1 in outpatient Radiology, and 3 in unidentified units). As demonstrated above, high risk encounters comprised 0.89% of the total population (0.95% of Emergency Department encounters and 0.08% of non-Emergency Department encounters). Of these high risk encounters, 8,502 encounters had a behavioral health chief complaint, 245 had a chief complaint that was possibly related to a behavioral health condition, and the chief complaint for 2,744 encounters represented a non-behavioral health condition (23.88% of the

high risk encounters). Appendix E provides a count of chief complaints (behavioral health, possibly behavioral health, and non-behavioral health) found in high suicide risk encounters.

Randomly Sampled Dataset of Emergency Department-Only Encounters

To facilitate a statistical comparison of the high risk encounters identified during the pre-intervention and post-intervention periods, evaluators randomly selected 260,000 encounters from both the pre-intervention and post-intervention data sets (520,000 combined encounters). The sample included only Emergency Department encounters. Within the sampled population, the pre-intervention count of high suicide risk encounters was 2,029 (0.78%), while the post-intervention count of high suicide risk encounters was 2,398 (0.92%). A chi-squared test found a statistically significant difference between the number of high suicide risk encounters, $X^2(1, N = 540,000) = 31.021, p = 0.0001$. There were statistically significantly more high suicide risk screens in the post-intervention period than in the pre-intervention period.

Interpretation/Discussion

The intent behind the Universal Suicide Risk Screening Program, first and foremost, was to reach zero in-hospital suicides. To make this possible, reliably identifying every patient at high risk for suicide is necessary. Therefore, the USRSP evaluation focused on answering two questions: 1. Can widespread compliance with universal screening across a large non-profit health system be achieved? and 2. Does universal screening identify individuals at high risk for suicide whose risk would go undetected using the “care as usual” strategy of screening only encounters whose primary reason for seeking treatment was a behavioral health condition? USRSP stakeholders initially set a project goal of 80% compliance with the expectation of having to build momentum over time to reach 90% program compliance. In practice, a screening compliance rate of 94.56% was achieved across all encounters in the post-intervention study

period. By contrast, only 2.38% of encounters included suicide risk screening in the “care as usual” cohort.

Program evaluators sought insight into why program compliance rates have consistently exceeded the project goals. One explanation may be that previous system-wide clinical improvement initiatives potentiated compliance with clinical specifications. Specifically, the health system deployed several “Reliable Care Blueprints” (RCBs), which sought to drive clinical improvements through the deployment of clinical workflows (Manos, 2017). While the USRSP was not part of the health system’s RCB portfolio, project stakeholders sought to mimic RCB deployment features such as the pre-intervention education plan and post-deployment compliance monitoring. For example, from the perspective of direct care nurses, the USRSP “felt” like an RCB with strong systems of control to ensure accountability. Additionally, the nursing informaticists who designed the suicide risk screening in the electronic health record (Epic) leveraged existing workflows and, outside the Emergency Department, relied upon navigators, which provided visual cues of omitted risk screens.

Beyond high compliance with the universal screening requirement, program evaluators sought to appraise whether a universal screening approach identifies more individuals at high risk for suicide than “care as usual” by comparing the identification of high suicide risk in the pre-intervention vs post-intervention cohorts. Also, evaluators sought to assess whether screening for suicide risk for individuals with non-behavioral health chief complaints and in non-Emergency Department units adds value to a suicide risk prevention plan. The chi-squared analysis of pre-intervention sample vs. post-intervention Emergency Department encounters identified statistically significantly more high risk individuals using a universal screening approach than “care as usual.” A statistically significant result, however, is expected, given the

large sample size. Also, one could argue that the effect (from 0.78% high risk encounters to 0.92% high risk encounters) is small. While that may be, program evaluators believe that the switch from an unvalidated, homegrown suicide risk screening tool in the pre-intervention sample to the use of the Columbia Suicide Severity Rating Scale in the post-intervention sample influenced this result. The homegrown risk assessment tool relied heavily on suicide risk factors and the expression of suicidal ideations. By contrast, the Columbia Suicide Severity Rating Scale scores an individual expressing suicidal ideations (absent a plan to die and access to this plan) as low risk. In the principal investigator's clinical judgment, the homegrown risk screening tool tends to overidentify high suicide risk relative to the C-SSRS. Appendices G and H display the C-SSRS and the homegrown suicide risk assessment tool, respectively. Had an evidence-based tool been used in the pre-intervention period, the percentage of encounters identified as high suicide risk would likely be lower than reported in this study.

Program evaluators assessed the impact of universal screening in non-Emergency Department units. High suicide risk was relatively rare in units outside the Emergency Department. Evaluators did not conduct medical record audits to determine whether the 49 high suicide risk Med-Surg or ICU department encounters, which would represent either a direct admission to the hospital or an inbound transfer from an outside facility, were an expected finding. For instance, a medical admission due to a nearly lethal suicide attempt would be expected. High suicide risk, however, would likely be an unexpected finding in Day Surgery, Labor & Delivery, and Outpatient Radiology. On the surface, universal screening for suicide risk does not appear to have utility, with only 0.08% of the 86,283 non-Emergency Department encounters screening as high risk. However, the true value of screening non-Emergency Department encounters lies in the organization's values and its commitment to zero in-hospital

suicides. Without a universal screening program, individuals at high risk for suicide would be left vulnerable in the departments least prepared to recognize and mitigate the risk. USRSP stakeholders within the health system are committed to zero in-hospital suicides and, as such, will continue screening non-Emergency Department encounters.

Finally, program evaluators sought to determine whether universal screening identified suicide risk in encounters that would be excluded from screening using a “care as usual” approach (screening only encounters where a behavioral health condition was the primary reason for seeking care). Suicide risk screening in these encounters proved to be a high-value activity, with nearly 1 in 4 high risk screens having a non-behavioral health chief complaint. In addition, program evaluators were impressed with the diversity of seemingly benign conditions among the non-behavioral health encounters, which resulted in the identification of high suicide risk. These include, but were not limited to, chest pain (326 high risk encounters), dental pain (10 high risk encounters), fever (20 high risk encounters), lip pain (11 high risk encounters), vomiting (67 high risk encounters), rashes (12 high risk encounters), and bee sting (2 high risk encounters). Ultimately, hospitals that merely comply with The Joint Commission’s NPSG 15.01.01 EP2 are at risk of missing nearly 25% of the individuals at high risk for suicide in their care. This gap leaves patients and hospitals vulnerable to in-hospital suicide.

Conclusion

There is no blood test or radiology study to detect suicidal ideations. Therefore, the only way for a nurse to know if their patient is at imminent risk of succumbing to the 10th leading cause of death is to screen using an evidence-based screening tool. Considering that most people who die by suicide encounter a healthcare professional before their death, effective screening for suicide risk may represent the last, best chance of saving a life. Although universal screening for

suicide risk is not yet the standard of care for hospitals, this Universal Suicide Risk Screening Program demonstrates that high levels of screening compliance can be achieved across a large non-profit health system and within various care settings. The program also reveals that failing to adopt a universal screening approach may result in nearly a quarter of all encounters with high suicide risk going unidentified.

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Appendix A

Suicide Risk Assessment and Prevention Policy

[Logo]	TITLE Suicide Risk Assessment and Prevention Policy		IDENTIFICATION NUMBER Number]
ORGANIZATION(S) [Organization name]	LEVEL <input type="checkbox"/> System <input type="checkbox"/> Organization <input type="checkbox"/> Division <input type="checkbox"/> Department	CATEGORY <input type="checkbox"/> Clinical <input type="checkbox"/> Management <input type="checkbox"/> Regulatory	POSTING DATE [MM/DD/YYYY] EFFECTIVE DATE [MM/DD/YYYY]
REVIEW CYCLE <input type="checkbox"/> 1 year <input type="checkbox"/> 3 years LAST REVIEW DATE: [MM/DD/YYYY]		REPLACES TITLE: Suicide Risk Assessment and Prevention Policy EFFECTIVE DATE(S): [MM/DD/YYYY]	

POLICY STATEMENT

Patients of the psychiatric hospital are screened for suicide risk and receive care, treatment, and services in an environment that minimizes or eliminates that risk.

PURPOSE

To establish procedures for identifying and addressing the care of individuals at risk for suicide to minimize or eliminate that risk and maintain patient safety.

SCOPE

Applies to all patients of the psychiatric hospital.

Applies to all hospital staff members who perform screening of patients, both at admission or during the course of care, treatment, and services.

DEFINITIONS

Assessment – The process established by the hospital for obtaining clinically relevant information about each individual seeking behavioral health care, treatment, or services. The information is used to match an individual’s need with the appropriate setting, service/program, and intervention.

Screening – Process of determining whether individuals have certain risk factors associated with physical or behavioral health issues requiring assessment.

Suicidal – Used to describe a person who intends to purposefully end their life and/or has threatened self-harm with the intention of taking their life, has made a self-destructive gesture, or has been described by a physician as suicidal.

Suicide Risk Screening – Screening consisting of a series of questions and observations used to determine if an individual is at risk for suicide.

RESPONSIBILITIES

The Patient Safety Committee is responsible for overseeing, reviewing, revising, maintaining, and implementing this policy.

Conducting the Suicide Risk Screening and Suicide Risk Assessment is the responsibility of qualified staff members who have completed relevant training and education, or have relevant experience, and who have demonstrated competency.

The Environment of Care Committee, in collaboration with the Patient Safety Committee, is responsible for maintaining an environment of care that can accommodate individuals at risk for suicide.

PROCEDURES

Suicide Risk Screening

Qualified staff does the following:

1. Performs a suicide risk screening for every individual as part of the admissions process.
2. Considers one or more of the following components as part of the suicide risk screening:
 - a. Primary diagnosis
 - AND/OR
 - b. Primary complaint for admission
3. Notes whether one of the following primary diagnoses or primary complaints is applicable:
 - Depression
 - Substance abuse
 - Mood disorder (for example, bipolar, unipolar, mania)
 - Violent or disruptive disorder
 - Postpartum depression
 - Physical, sexual, or domestic abuse or violence
 - Eating disorder
4. Notes if a physician has described the individual as suicidal in the patient medical record.
5. Documents this process and its results in the admissions assessment and the individual's medical record.

Suicide Risk Assessment

If one of the above-listed primary diagnoses or primary complaints is noted, or if a physician has described the individual as suicidal in the patient medical record, qualified staff does the following:

1. Uses an evidence-based process to assess the individual's risk for suicide, and completes the Suicide Risk Assessment form in the electronic medical record.
2. Identifies specific factors and features that may increase the risk for suicide, as described in the Suicide Risk Assessment form.
3. Uses the following when completing the suicide risk assessment:
 - Interview with the individual
 - Interview with the individual's family or significant other, if applicable and appropriate
 - Observations of the individual
4. Ensures that the suicide risk assessment has been documented in the patient medical record.
 - This should happen automatically when the assessment is completed through the electronic medical record.
 - If the completed assessment does not appear in the patient medical record, complete the paper version of the Suicide Risk Assessment form and scan into the medical record.

If the suicide risk assessment indicates that the individual is at risk for suicide, qualified staff does the following:

1. Ensures that the individual's immediate safety needs are met.

2. Notifies the admitting or referring physician immediately to request orders for suicide precautions.
3. Refers the individual for a psychiatry consult, according to established policy and procedures.
4. Initiates the suicide precautions listed below upon receipt of physician's orders to do so.
 - Suicide precautions can only be implemented by an order from a physician.

Suicide Precautions

Prior to the individual being admitted to a room, qualified staff prepares the room by doing the following:

1. Removes all sharp objects.
2. Removes unnecessary cables, cords, shoelaces, and equipment.
3. Removes the telephone.
4. Shortens the call bell so it is not used to cause harm but can still be used to call for assistance.
5. Removes bottles or other containers of solutions.
6. Removes unnecessary linen.
7. Replaces plastic trash can liners with paper ones.
8. Places a sign on the door indicating that visitors must report to the nursing station prior to entering the room.
 - Collects and secures all items from visitors before allowing them to enter the room.
 - If the physician orders a "no visitors" policy, no visitors should be allowed to enter the room.
9. Searches the individual and their belongings for potentially dangerous items and contraband, using a second staff member as a witness.
 - Obtains consent from the individual before performing the search, if possible.
 - If the individual protests the search, conducts the search with the following witnesses:
 - Individual
 - Another staff member
 - Security personnel, if needed
 - Documents the search and any findings.
10. Removes from the room any potentially dangerous items belonging to the individual.
 - Explains to the individual that this is being done for their safety.
 - Inventories belongings removed from the individual.
 - Secures the individual's belongings until it is deemed appropriate to return them.
11. Removes from the room any contraband.
 - Turns over seized contraband to Security Department staff.

Upon admission to the room, qualified staff does the following:

1. Explains to the individual and, if applicable and appropriate, their family that the individual is on suicide precautions for their safety.
2. Places the individual immediately on constant 1:1 observation by a designated care attendant.
 - Observation must be conducted by a trained, qualified direct caregiver.
 - The care attendant should be the same gender as the individual whenever possible.
 - Family members may not be used to provide this observation.
 - The name of the care attendant is documented.
 - The care attendant may be relieved for breaks and meals only by available health care personnel.
3. Assists the individual into a hospital gown.

4. Indicates “totally disposable isolation tray” option for meals in the patient medical record.

The charge nurse does the following:

1. Notifies relevant staff that the individual is on suicide precautions.
 - Notifies staff when suicide precautions are no longer in effect.
 - Suicide precautions can only be canceled by a physician’s order.
2. Plans a room assignment that facilitates observation by unit staff as well as the care attendant.
3. Meets with the care attendant upon arrival to the unit.
 - Arranges break and mealtimes.
 - Verifies that appropriate staff is available to provide observation during break and mealtimes.
 - Ensures that the care attendant is knowledgeable on suicide precautions and relevant safety concerns.
4. Checks periodically to ensure that the care attendant is providing constant observation.
5. Notifies Security department staff if the individual’s behavior escalates, such as an increase in disputes and disturbances.

The individual’s care nurse does the following during each shift:

1. Verifies the practitioner’s order for suicide precautions.
2. Conducts a suicide risk reassessment, according to procedures established in this policy.
3. Explains suicide precautions to the individual, including items prohibited in the room.
4. Explains the individual’s plan of care for that shift.
5. Documents the individual’s behavior, including any changes in behavior.
6. Restricts the individual to their room, unless a psychiatrist determines that ambulation is beneficial and safe.
7. Collaborates with the care attendant to address the individual’s safety care needs.
8. Searches the individual’s room and belongings and removes any potentially harmful items and/or contraband.
 - Explains to the individual that this is being done for their safety.
 - Inventories and secures any seized items belonging to the individual.
 - Turns over any contraband to Security department staff.
 - Documents the search, including the following details:
 - Scope of search
 - Reason for search
 - Description of any items seized
 - Account of disposition of seized items
9. Prohibits visitors from entering the room of an individual with a “no visitors” order from a physician.
10. Searches all visitors who wish to enter the individual’s room.
 - Collects and secures all items from visitors.
 - Returns collected items to visitors when they leave the individual’s room.
11. Searches packages delivered to the individual, either by visitors or by outside organizations.
 - Obtains the individual’s consent to search the package.
 - If consent is not granted, the package will not be allowed into the individual’s room.
 - Removes any potentially harmful items or contraband from the package.
 - Secures seized items with the individual’s other belongings.
 - Turns over any contraband to Security department staff.
12. Observes the individual as they take medications.

- Collaborates with the pharmacy to obtain liquid medications, whenever possible.
 - Checks the individual's mouth to ensure medication was swallowed.
 - Removes medications from the individual's room when not being administered.
13. Follows established policies and procedures for restraint and/or seclusion, as necessary.

The care attendant does the following:

1. Reports to charge nurse at the beginning of each shift to get instructions and begin continuous visual contact.
2. Documents observation on an hourly basis.
3. Takes two 15-minute breaks and one 30-minute meal break, as prearranged by the charge nurse.
4. Communicates with the care and/or charge nurse at break times to ensure a qualified staff member is available to continue observation.
5. Introduces themselves to the individual and explains the following:
 - How long they will be with the individual
 - How they will meet the individual's needs
6. Keeps the individual within continuous visual contact at all times.
 - Continuous visual contact applies even when the individual is using the bathroom.
7. Keeps the room door and bathroom door open at all times.
 - Privacy curtain can be closed in lieu of closing the room door.
8. Remains alert at all times.
 - Notifies the care and/or charge nurse if they become sleepy and requires another staff member to relieve them.
9. Refrains from reading or watching television.
 - The TV may be on only if the individual requests it and there is no physician's order against it.
10. Remains between the individual and the door at all times.
11. Checks the individual's meal tray before and after the individual eats.
 - Ensures that the tray is a totally disposable isolation tray containing only paper and plastic dinnerware.
 - Ensures that all dinnerware, including utensils, is returned to the tray and discarded.
 - Notifies the care nurse if any items are missing from the tray.
12. Accompanies the individual to all tests and procedures off the unit.
 - Notifies the care and/or charge nurse before leaving the unit with individual.
13. Facilitates visitor check-in with the nursing station prior to visiting with the individual.
14. Remains in the room with all visitors.
15. Refrains from discussing the individual with anyone except the individual's caregivers.
 - Refers visitors to the care nurse for information.
16. Steps outside the room, but remains outside the room, when providers are examining the individual, if requested to do so.
17. Notifies qualified staff immediately when changes in the individual's behavior are observed.
18. Notifies the care nurse when the individual engages in behavior that requires immediate attention, including but not limited to the following:
 - Pulling at intravenous lines or tubes
 - Pulling at restraints
 - Verbal threats and/or yelling
 - Refusal to comply with requests
19. Requests assistance if harm to the individual or the care attendant is imminent.
20. Remains calm at all times.
21. Informs the individual of what they are going to do before doing it.

22. Promotes a safe and caring environment.
23. Maintains confidentiality.
24. Refrains from wearing hair down and from wearing any items that could be used to harm the individual or staff, including but not limited to the following:
 - Dangling earrings
 - Neckties
 - Ink pens around the neck
25. Helps ensure that no potentially dangerous items are left in the room by staff, including but not limited to the following:
 - Tourniquets
 - Syringes
 - Needles
 - Chemical cleaners or spray cans

Reassessment

The individual's care nurse does the following during each shift:

1. Verifies the practitioner's order for suicide precautions.
2. Reassesses the individual for risk of serious self-harm due to suicidal ideation, using the Suicide Risk Assessment form.
3. Contacts the physician who ordered suicide precautions about the results of the reassessment.
4. Complies with the physician's orders to either continue or cancel suicide precautions.

Training and Competence

All staff members who screen, assess, provide care for, monitor, transport, and/or have contact with patients at high risk for suicide do the following:

1. Achieve and maintain appropriate licensing, certification, credentialing, and/or privileging.
2. Demonstrate competency in performing job-related tasks associated with screening, assessing, providing care for, and/or monitoring patients at high risk for suicide.
3. Participate in all relevant ongoing education and training opportunities.

Department managers do the following:

1. Ensure all staff members who screen, assess, provide care for, and/or monitor patients at high risk for suicide meet the following criteria:
 - Have current licensing, certification, qualifications, experience, credentialing, and/or privileging relevant to their job duties
 - Are competent to perform job-related tasks associated with screening, assessing, providing care for, and/or monitoring patients at high risk for suicide
 - Have successfully completed relevant ongoing education and training
2. Include relevant skills, competency, and compliance in all employee evaluations.

REFERENCES

Joint Commission Standard NPSG.15.01.01, EP 2. Screen all patients for suicidal ideation who are being evaluated or treated for behavioral health conditions as their primary reason for care using a validated screening tool.

Joint Commission Standard NPSG.15.01.01, EP 3. Use an evidence-based process to conduct a suicide assessment of patients who have screened positive for suicidal ideation. The assessment directly asks about suicidal ideation, plan, intent, suicidal or self-harm behaviors, risk factors, and protective factors.

Joint Commission Standard NPSG.15.01.01, EP 5. Follow written policies and procedures addressing the care of patients identified as at risk for suicide. At a minimum, these should include the following:

- Training and competence assessment of staff who care for patients at risk for suicide
- Guidelines for reassessment
- Monitoring patients who are at high risk for suicide

ATTACHMENTS

Initial Assessment Procedures (included in *PolicySource*)
 Suicide Risk Assessment Form (electronic and paper versions)

APPROVAL

<p>NAME AND CREDENTIALS [Name and Credentials]</p> <p>TITLE [Title]</p>	<p>NAME AND CREDENTIALS [Name and Credentials]</p> <p>TITLE [Title]</p>
<p>SIGNATURE</p>	<p>DATE [MM/DD/YYYY]</p>
<p>SIGNATURE</p>	<p>DATE [MM/DD/YYYY]</p>

The Joint Commission Sample Suicide Risk Assessment & Prevention

Appendix B**UT Southwestern**
Medical Center**Human Research Protection Program**

March 17, 2022

To: Scott Domingue, MBA, BSN, RN, NEA-BC, CMSRN
Chief Operating Officer/Chief Nursing Officer, Acute Behavioral Health
Texas Health Resources

From: Kelechi Echendu Kelechi Echendu Kelechi.Echendu@UTSouthwestern.edu
Senior Regulatory Analyst
Human Research Protection Program Department

RE: **Non-Regulated Research**

Project Title: **Evaluation of a Universal Suicide Risk Screening Program in a Large Non-Profit HealthSystem**

The UT Southwestern Human Research Protection Program (HRPP) has reviewed the above referenced project and determined that it does not meet the definition of research under 45 CFR 46.102 and therefore does not require IRB approval or oversight.

If you have any questions related to this communication or the UT Southwestern HRPP, please call 214-648-3060.

UT Southwestern Medical Center 5323 Harry Hines Boulevard / Dallas, Texas 75390-8843 / (214)648-3060

Appendix C



June 21, 2022

To: Scott Domingue
Capstone College of Nursing
Box 870358

From: Carpantato T. Myles, MSM, CIM, CIP
Director & Research Compliance Officer

Re: **Notice of Approval**
 IRB Application #: e-Protocol 22-04-5576
 Project Title: "Evaluation of a Universal Suicide Risk Screening Program in a Large Non-Profit Health System"
 Submission Type: New
 Approval Date: June 21, 2022
 Expiration Date: June 20, 2023
 Funding Source: None
 Review Category: Exempt
 Approved Documents: Waiver of Consent

Dear Mr. Domingue:

The University of Alabama Institutional Review Board has approved your proposed research. Therefore, your application has been approved according to 45 CFR part 46. Approval has been given under exempt review category 4 as outlined below:

(4) Secondary research for which consent is not required: Secondary research uses of identifiable private information or identifiable biospecimens, if: (ii) Information, which may include information about biospecimens, is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained directly or through identifiers linked to the subjects, the investigator does not contact the subjects, and the investigator will not re-identify subjects.

The approval for your application will lapse, as noted above. If your research will continue beyond this date, please submit the Continuing Review to the IRB as University policy requires before the lapse. Please note any modifications made in research design, methodology, or procedures must be submitted to and approved by the IRB before implementation. Please submit a final report form when the study is complete.

Please use reproductions of the stamped IRB-approved informed consent form to obtain consent from your participants.

All the best with your research.

Appendix D

May 27, 2022

To whom it may concern,

I acknowledge that Scott Domingue, COO/CNO of Acute Behavioral Health Services at Texas Health, is pursuing a Doctor of Nursing Practice (DNP) degree at the University of Alabama. I am aware of his DNP project, Evaluation of a Universal Suicide Risk Screening Program in a Large Non-Profit Health System, and that our local Institutional Review Board (IRB) has determined this project to be exempt from IRB review. To complete this project, Scott will require access to Texas Health data which will be de-identified, stored in a secured file, and deleted upon completion of the project. Please accept this letter as confirmation that Texas Health supports Scott's DNP project and agrees to provide access to and use of the organization's data as necessary to complete the evaluation of our Universal Suicide Risk Screening Program.

Sincerely,

A handwritten signature in black ink that reads "Kirk King".

Kirk King, FACHE
EVP Hospital Channel Chief Operating Officer
Texas Health Resources

Appendix E

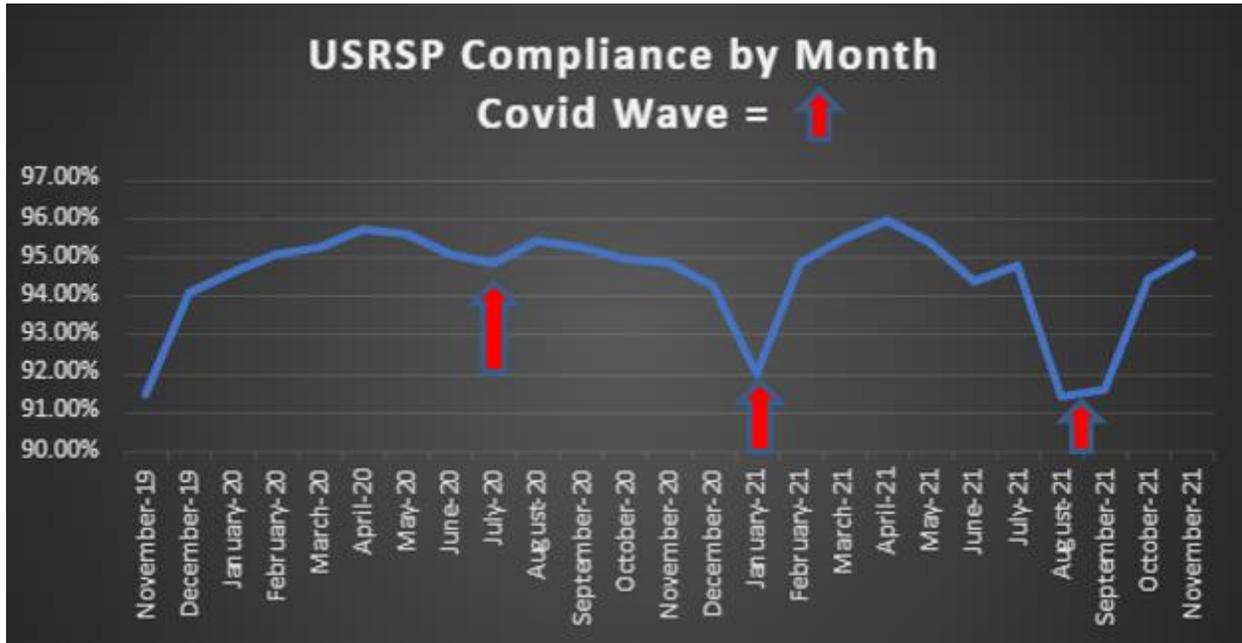
<p>Behavioral Health Chief Complaints:</p> <p>(n = 8,502; 73.99% of all High Suicide Risk Encounters)</p>	<p>Accidental Drug Ingestion (8)</p> <p>Addiction Problem (0)</p> <p>Aggressive Behavior (11)</p> <p>Agitated (7)</p> <p>Alcohol Intoxication (118)</p> <p>Alcohol Problem (4)</p> <p>Alcohol Use (37)</p> <p>Alcoholic Seizure (1)</p> <p>Anorexia (11)</p> <p>Anxiety (122)</p> <p>Behavioral Problem (1)</p> <p>Cocaine Use (1)</p> <p>Combative (2)</p> <p>Delirium Tremens (11)</p> <p>Depression (102)</p> <p>Detox (49)</p> <p>Domestic Violence (8)</p> <p>Drug/Alcohol Assessment (0)</p> <p>Drug Problem (1)</p>	<p>Dystonic Reaction (2)</p> <p>Eating Disorders (1)</p> <p>Family Problems (0)</p> <p>Grief (0)</p> <p>Hallucinations (102)</p> <p>Homicidal (21)</p> <p>Intentional Ingestion (315)</p> <p>Manic Behavior (9)</p> <p>Mental Health Problem (6)</p> <p>Meth Dependency (1)</p> <p>Opiate Dependency (0)</p> <p>Other Persistent Mental Disorder (0)</p> <p>Overdose (13)</p> <p>Overdose, Accidental (38)</p> <p>Overdose, Intentional (979)</p> <p>Panic Attack (51)</p> <p>PTSD (1)</p> <p>Psych Evaluation (2,337)</p> <p>Psych Problem (380)</p>	<p>Psychosis (2)</p> <p>Psychotic Symptoms (15)</p> <p>Self-Mutilation (33)</p> <p>Sexual Assault (35)</p> <p>Stress (0)</p> <p>Substance Abuse (64)</p> <p>Suicidal (2,781)</p> <p>Suicide Attempt (400)</p> <p>Suicidal Gesture (340)</p> <p>Uncontrollable Behavior (1)</p> <p>Withdrawal, Alcohol (53)</p> <p>Withdrawal, Drugs (28)</p>
<p>Chief Complaints Possibly Related to Behavioral Health Conditions:</p> <p>(n = 245; 2.13% of all High Suicide Risk Encounters)</p>	<p>Arm Laceration (9)</p> <p>Altered Mental Status (144)</p> <p>Carbon Monoxide Exposure (1)</p> <p>Cardiac Arrest (2)</p> <p>Foreign Body Swallowed (14)</p> <p>Hyperventilating (28)</p> <p>Involuntary Movements (11)</p>	<p>Neck Laceration (2)</p> <p>Poisoning (9)</p> <p>Stab Wound (8)</p> <p>Tremors (2)</p> <p>Wrist Injury (5)</p> <p>Wrist Laceration (10)</p>	
<p>Non-Behavioral Health Chief Complaints:</p> <p>(n = 2,744; 23.88% of all High Suicide Risk Encounters)</p>	<p>Abdominal Pain (217)</p> <p>Abdominal Problem (4)</p> <p>Abnormal Labs (7)</p> <p>Abnormal Stool (1)</p> <p>Abscess (7)</p> <p>Allergic Reaction (10)</p> <p>Altercation (38)</p> <p>Ankle Deformity (1)</p> <p>Ankle Injury (6)</p> <p>Ankle Pain (7)</p> <p>Ankle Swelling (1)</p> <p>Arm Deformity (1)</p> <p>Arm Injury (9)</p> <p>Assess Medical Issue (2)</p> <p>Asthma Attack (10)</p> <p>Auto vs Pedestrian (5)</p>	<p>Foot Swelling (2)</p> <p>Foreign Body, Eye (1)</p> <p>Foreign Body, Penis (1)</p> <p>Foreign Body, Throat (3)</p> <p>Foreign Body, Vagina (6)</p> <p>Generalized Body Aches (11)</p> <p>GI Bleed (2)</p> <p>Gland Swelling (1)</p> <p>Hand Injury (11)</p> <p>Hand Laceration (8)</p> <p>Hand Pain (6)</p> <p>Hand Swelling (3)</p> <p>Head Injury (19)</p> <p>Head Laceration (4)</p> <p>Head Pain (6)</p> <p>Headache (60)</p>	<p>Pneumonia (1)</p> <p>Possible Hernia (1)</p> <p>Possible Seizure (28)</p> <p>Post-Op Infection (1)</p> <p>Post-Op Problem (3)</p> <p>Pregnancy Problem (3)</p> <p>Pregnancy Test (3)</p> <p>Priapism (2)</p> <p>Prostate Problem (2)</p> <p>Puncture Wound (1)</p> <p>Rapid Heart Rate (6)</p> <p>Rash (12)</p> <p>Rectal Bleeding (7)</p> <p>Rectal Pain (5)</p> <p>Rectal Problem (1)</p> <p>Referral (11)</p>

Back Injury (2)	Heart Palpitations (3)	Rehabilitation (3)
Back Pain (62)	Heat Exposure (4)	Reported Assault (18)
Bee Sting (2)	Hematemesis (1)	Respiratory Arrest (1)
Bicycle Crash (1)	Hematuria (2)	Respiratory Problem (4)
Black Stools (1)	Hemoptysis (1)	Restless Legs (1)
Bladder Pain (1)	Hiccups (1)	Rib Injury (1)
Bleeding/Bruising (1)	High Blood Pressure (34)	Rib Pain (7)
Blood in Stool (4)	High Blood Sugar (22)	Ringing In Ear (1)
Breast Pain (1)	Hip Injury (2)	Scabies (1)
Breast Problem (2)	Hip Pain (2)	Scrotal Pain (1)
Bruises (1)	Human Bite (1)	Seizures (97)
Buttocks Pain (1)	Hunger (1)	Shortness Of Breath (111)
Cat Scratch (1)	Hypertension (4)	Shoulder Deformity (1)
Cellulitis (2)	Hypotension (2)	Shoulder Injury (1)
Chemical Burn (1)	Illness (1)	Shoulder Pain (4)
Chest Heaviness (1)	Incontinence (2)	Shoulder Problem (1)
Chest Pain (326)	Indigestion (3)	Side Effect (1)
Chest Pressure (7)	Infection (3)	Side Pain (1)
Chest Tightness (6)	Inhalation with Dyspnea (1)	Skin Lesions (2)
Chills (2)	Insect Bite (2)	Skin Problems (10)
Choking (1)	Insomnia (5)	Skin Redness (1)
Clavicle Injury (1)	Irregular Heartbeat (2)	Sleepy (1)
Closed Head Injury (5)	Itching (2)	Slow Heart Rate (1)
Cold Exposure (2)	IUD (1)	Sore Throat (22)
Cold Like Symptoms (9)	Jaw Pain (2)	Spasms (2)
Congestion (9)	Jet Ski Crash (1)	Speech Difficulty (2)
Constipation (6)	Joint Pain (4)	Spotting (1)
COPD (1)	Knee Injury (2)	STD Check (4)
Cough (26)	Knee Pain (3)	STD Exposure (5)
Covid Symptoms (54)	Labor/Contractions (1)	STEMI Alert (1)
Covid-19 (7)	Labs Only (1)	Stopped Up Ear (1)
Cramps (3)	Laceration (12)	Stroke Symptoms (6)
Decreased Blood Sugar (1)	Leg Injury (4)	Surgical Problem (1)
Decreased Fetal Movement (2)	Leg Laceration (1)	Suture Removal (1)
Decreased Oxygen Level (2)	Leg Pain (21)	Swelling (2)
Decubitus Ulcer (1)	Leg Swelling (1)	Syncope (35)
Dehydration (1)	Lethargy (2)	Testicle Swelling (2)
Dental Pain (10)	Lip Swelling (11)	Testicular Pain (4)
Dental Swelling (1)	Loss of Appetite (2)	Throat Problem (1)
Dialysis Shunt Problem (1)	Loss of Consciousness (7)	Tingling (3)
Diarrhea (10)	Loss of Vision (1)	Toe Injury (2)
Difficulty Walking (1)	Low Blood Count (1)	Toe Pain (1)
Diplopia (1)	Low Blood Pressure (5)	Tongue Swelling (1)
Dizziness (51)	Low Blood Sugar (8)	Toxicology Screen (2)
Dog Bite (1)	Lump (1)	TIA (1)
Drug Screen (1)	Medical Problem (74)	Trauma (10)

DVT (1)	Medical Screening (104)	Unable To Walk (1)
Dyspnea (5)	Medical Evaluation (5)	Unconscious (4)
Dysuria (4)	Medication Refill (30)	Urethral Discharge (1)
Ear Pain (4)	Melena (1)	URI (1)
Edema (4)	Miscarriage (1)	Urinary Catheter Problem (3)
Elbow Pain (2)	Motor Vehicle Crash (52)	Urinary Complaint (6)
Elevated Blood Sugar (7)	Mouth Lesion (1)	Urinary Frequency (1)
ENT Problem (1)	Mouth Swelling (1)	Urinary Pain (3)
Epigastric Pain (4)	Multiple Falls (1)	Urinary Problem (1)
Evaluation (7)	Multiple Lacerations (1)	Urine Retention (5)
Extremity Weakness (7)	Musculoskeletal Pain (42)	Uterine Prolapse (1)
Eye Pain (2)	Nasal Pain (1)	UTI (5)
Eye Problem (4)	Nausea (22)	Vaginal Bleeding (12)
Eye Swelling (2)	Nausea & Vomiting (5)	Vaginal Discharge (4)
Eye Trauma (1)	Near Syncope (10)	Vaginal Pain (3)
Facial Injury (3)	Neck Injury (1)	Vaginal Swelling (1)
Facial Laceration (4)	Neck Pain (11)	Vision Changes (4)
Facial Numbness (1)	Neck Swelling (1)	Vomiting (67)
Facial Swelling (1)	Neurological Problems (3)	Vomiting Blood (4)
Fall (95)	Nose Bleed (2)	Vomiting, Pregnancy (1)
Fatigue (8)	Not Supplied (91)	Walking Problems (1)
Fever (20)	Novel Coronavirus Exposure (15)	Water Leaking (1)
Finger Deformity (1)	Numbness (2)	Weakness (45)
Finger Injury (2)	Oral Lesions (1)	Wheezing (2)
Finger Laceration (7)	Other (1)	Work Note (1)
Finger Pain (1)	Pain (14)	Wound (12)
Finger Swelling (1)	Pain With Inspiration (2)	Wound Check (6)
Flank Pain (14)	Palpitations (3)	Wound Infection (3)
Flu-Like Symptoms (24)	Pancreatitis (1)	Wound Re-Evaluation (1)
Follow-Up Medical Problem (1)	Paralysis (1)	Wrist Pain (1)
Foot Injury (8)	Pelvic Pain (6)	Wrist Swelling (1)
Foot Laceration (1)	Penile Discharge (2)	
Foot Numbness (2)	Penis Pain (3)	
Foot Pain (9)	Pleuritic Chest Pain (2)	

Inventory of Chief Complaints Found in High Suicide Risk Encounters

Appendix F



Universal Suicide Risk Screening Program Compliance by Month

Appendix G

Date: _____ Time: _____

Ask questions that are in bold and underlined . Ask Questions 1 and 2	Past month	
	YES	NO
1) Wish to be Dead: Person endorses thoughts about a wish to be dead or not alive anymore, or wish to fall asleep and not wake up? <u>Have you wished you were dead or wished you could go to sleep and not wake up?</u>		
2) Suicidal Thoughts: General non-specific thoughts of wanting to end one's life/die by suicide, "I've thought about killing myself" without general thoughts of ways to kill oneself/associated methods, intent, or plan." <u>Have you had any actual thoughts of killing yourself?</u>		
If YES to 2, ask questions 3, 4, 5, and 6. If NO to 2, go directly to question 6.		
3) Suicidal Thoughts with Method (without Specific Plan or Intent to Act): Person endorses thoughts of suicide and has thought of a least one method during the assessment period. This is different than a specific plan with time, place or method details worked out. "I thought about taking an overdose, but I never made a specific plan as to when where or how I would actually do it...and I would never go through with it." <u>Have you been thinking about how you might do this?</u>		
4) Suicidal Intent (without Specific Plan): Active suicidal thoughts of killing oneself and patient reports having <u>some intent to act on such thoughts</u> , as oppose to "I have the thoughts, but I definitely will not do anything about them." <u>Have you had these thoughts and had some intention of acting on them?</u>		
5) Suicide Intent with Specific Plan: Thoughts of killing oneself with details of plan fully or partially worked out and person has some intent to carry it out. <u>Have you started to work out or worked out the details of how to kill yourself? Do you intend to carry out this plan?</u>		
6) Suicide Behavior Question <u>Have you ever done anything, started to do anything, or prepared to do anything to end your life?</u> Examples: Collected pills, obtained a gun, gave away valuables, wrote a will or suicide note, took out pills but didn't swallow any, held a gun but changed your mind or it was grabbed from your hand, went to the roof but didn't jump; or actually took pills, tried to shoot yourself, cut yourself, tried to hang yourself, etc. If YES, ask: <u>Was this within the past 3 months?</u>	Lifetime	
	Past 3 Months	

Screening Response Decision Tree:

- No to all Questions: No Suicide risk
- Question 1: Low risk -Offer Pastoral Care and/or Behavioral Health Clinician assessment
- Question 2: Low risk -Offer Pastoral Care and/or Behavioral Health Clinician assessment
- Question 3: Moderate Risk-contact Behavioral Health Clinician for full suicide risk assessment
- Question 4: High Risk- Place patient on Suicide Precautions with 1:1 Sitter, contact Behavioral Health Clinician for full suicide risk assessment
- Question 5: High Risk- Place patient on Suicide Precautions with 1:1 Sitter, contact Behavioral Health Clinician for full suicide risk assessment
- Question 6:
 - **Item 6 - Over Three months ago:** Moderate Risk- Offer Pastoral Care and/or Behavioral Health Clinician assessment
 - **Item 6 - Three months ago or less:** High Risk- Place patient on Suicide Precautions with 1:1 Sitter, contact Behavioral Health Crisis Clinician for full suicide risk assessment

PRINTED NAME	SIGNATURE	CREDENTIALS	INITIALS

HOSPITAL NAME MUST BE FILLED IN BLANK BELOW





Texas Health Resources

PATIENT IDENTIFICATION

Suicide CSSRS Screener Downtime Form

Page 1 of 1 (Revised 04/20)

Appendix H

Suicide Risk	
Sex	
Age	
Marital/Partner Status	
Lethality of Current Attempt	
Family History of Suicide	
Personal History of Attempts	
Support System	
Verbalizing Suicide Plan or Intent	
Loss/trauma (past 6 mo.) History of Abuse, Chronic Debilitating	
Impulsiveness/Reckless Behaviors/Aggression	
Hopelessness - does not see chance for improvement	
Recent History of Substance Abuse	
Psychological Pain or Anguish - Shows Signs of Emotional	
Patient Self-Rating of Anxiety (on a scale of 0-10)	
Total Score	

“Homegrown” Suicide Risk Assessment Tool (Pre-Intervention)