To ASQ or Not to ASQ: A Suicide Risk Screening Improvement Project

Gina Mumper

Follow this and additional works at: https://repository.usfca.edu/capstone

Part of the Critical Care Nursing Commons

Recommended Citation
Mumper, Gina, "To ASQ or Not to ASQ: A Suicide Risk Screening Improvement Project" (2017). Master's Projects and Capstones. 667. https://repository.usfca.edu/capstone/667

This Project/Capstone is brought to you for free and open access by the Theses, Dissertations, Capstones and Projects at USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. It has been accepted for inclusion in Master's Projects and Capstones by an authorized administrator of USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. For more information, please contact repository@usfca.edu.
Prospectus Elements 1-10

Gina Mumper

University of San Francisco
Prospectus Elements 1-10

Clinical Leadership Theme

The title of the clinical nurse leader (CNL) project is “To ASQ or Not to ASQ: A Suicide Risk Screening Improvement Project”. The project aims to improve the compliance with the completion of the “Ask Suicide-Screening Questions” (ASQ) on adolescent patient in the Medical Surgical Intensive Care Unit (MSICU). Risk reduction and patient safety are the desired outcomes, which correlate with the clinical leadership themes of assessment and accountability with a focus on pediatric education. The CNL roles identified throughout this project are educator, systems analyst/risk anticipator, advocate, and outcomes manager. According to the American Association of Colleges of Nursing (AACN), the CNL’s role is to provide evidence-based care in the process of anticipating and reducing risk while being held accountable for evaluating and improving point-of-care outcomes (American Association of Colleges of Nursing, 2013).

The process begins with the admission of pediatric patients ages 10-18 years to the MSICU. The process ends within 24 hours of admission. This important work has identified the need to improve (a) patient safety, (b) staff knowledge and satisfaction, (c) increased compliance with completing the ASQ, and (d) compliance with The Joint Commission National Patient Safety Goal #15 (The Joint Commission, 2016). This evidence-based change project will provide education and support for staff that result in a significant improvement in the outcomes of adolescents admitted to the MSICU.

Statement of the Problem

Suicide is the second leading cause of death in children between the ages of 10-19 years (Shain, 2016). Most patients who die by suicide have visited a healthcare provider or facility
within the past year. Interestingly, most are seen within the last three months, for non-suicidal complaints (Ballard et al., 2017). The Joint Commission has stated in their Sentinel Event Alert #56 that it requires hospitals to “conduct a risk assessment that identifies specific patient characteristics” in regard to suicide risk (2016). Inpatient healthcare providers, particularly CNLs, are in a strategic position to assess adolescents for suicide risk regardless of their admitting diagnosis.

The University of California, Davis Medical Center (UCDMC) has implemented a policy requiring all patients to have a suicide risk screening performed and specifically the ASQ completed on all pediatric patients between the ages of 10-18, within 24 hours of admission. A key factor in identifying adolescents at risk for suicide is whether or not a suicide risk assessment is completed. The suicide risk assessment tool used by UCDMC in the pediatric population is the ASQ. The ASQ screening tool was developed following a study by Horowitz, et al. (2012) that evaluated the effectiveness of asking 17 suicide-screening questions to 524 patients. The purpose was to develop a brief suicide risk-screening tool that could be delivered in one to two minutes. The result of the study found that four questions stood above the rest as having both a high sensitivity and negative predictive value.

The ASQ consists of these four questions:

- In the past few weeks, have you wished you were dead?
- In the past few weeks, have you felt that you or your family would be better off if you were dead?
- In the past week, have you been having thoughts about killing yourself?
- Have you ever tried to kill yourself? (see Appendix A for ASQ tool).
Responding yes or refusing to respond when having the ability to do so results in a positive screen. A positive screen requires that the patient be evaluated for further psychiatric assessment. Educating the staff on the purpose, policy, and procedure of adolescent suicide risk screening will provide the knowledge and tools needed to increase compliance with the completion of the ASQ.

**Project Overview**

The purpose of this CNL improvement project is to increase compliance with the completion of the ASQ within 24 hours of admission to the ICU. This will be accomplished by assessing the current state of staff understanding of the process and providing education to increase their knowledge and ability to perform the ASQ within the specified time frame. Staff education will provide knowledge and skills needed to accomplish the required screening questionnaire. By working on the improvement process, we expect increased compliance with the ASQ that will (a) identify patients at risk for suicide (b) ensure a safe environment for those identified as a suicide risk and development of harm prevention strategies, and (c) ensure that appropriate disposition and resources are provided for patients found to be at risk.

The specific aim of this improvement project is to increase ASQ completion compliance by 30% to meet the hospital benchmark goal of 90% within 6 months. The increased compliance with completing the ASQ will assure that most adolescents will be screened for suicide risk and provided the appropriate intervention. The specific aim of the project will be attained through the process of educating the staff and correlates directly with the global aim of pediatric education.
Rationale

The latest suicide data reports that 41,149 persons died by suicide in the United States in 2013 and an additional 395,000 self-inflicted injuries occurred (Shepard, Gurewich, Lwin, Reed, & Silverman, 2016). In examining the direct cost of suicide, Shepard et al. include “medical care, ambulance transport, investigations by medical examiners or coroners, nursing home care, general and specialty physicians’ care, and follow-up care” and estimate the cost per suicide is between $1,795,378 - $2,012,476 for adolescents 10-18 years old (p. 353). Beurs et al., (2015) report on a study that showed a retrospective reduction in the cost of suicide when the staff is trained in suicide prevention and the conclusion was made that any intervention outweighs no intervention (see Appendix B for cost/benefit tables). Identifying the process improvement began with the microsystem assessment using “The Microsystem Academy Inpatient Greenbook Workbook” found on the Dartmouth Institute for Health Policy and Clinical Practice website (The Dartmouth Institute, 2017). The assessment consisted of the five P’s: purpose, patients, professionals, process, and patterns. Assessing the patient population in the MSICU revealed that the second most prominent patient population was pediatrics. The MSICU has been primarily an adult ICU with the capability to take overflow pediatric intensive care unit (PICU) patients since 1995. Over the last several years the pediatric patient population of the hospital has expanded resulting in more pediatric patients admitted to the MSICU than in previous years. The MSICU has had as many as six of the eight beds occupied by pediatric patients requiring ICU level of care.

Benner identified the five stages nurses advance through as: novice, advanced beginner, competent, proficient, and expert (Davis & Maisano, 2016). Nurses who have been expert adult ICU nurses have now found themselves caring for an increased number of pediatric patients and
the level of comfort among most of the staff is low. These expert nurses are now in a novice role in caring for pediatric patients in the ICU. Wilson and Harwood (2015), describe a phenomenon known as *perpetual novice* in which nurses cannot achieve expertise in a specific skill in their practice area because they have not been afforded a positive culture of learning and/or education. When interviewing the professionals in the MSICU, it was verbalized that increased pediatric education was desired. A previous needs assessment survey had been administered to the staff approximately 4 months prior that had identified a prominent concern of caring for suicidal teens. Thus leading to the primary project improvement theme of pediatric education. There are numerous methods and types of education required to evolve the MSICU into a solid mixed pediatric/adult ICU. Narrowing the educational needs led this process improvement to focus on the adolescent suicide risk screening using the ASQ.

The question needing to be answered was, “Why is risk-screening compliance below 90%?” An Ishikawa diagram was used to help identify contributing factors as to why the unit compliance was low (see Appendix C for Ishikawa diagram). Focusing on educating the staff members that are required to complete the assessment will be the target of the improvement. The fishbone diagram analysis shows that the needs are increased knowledge of the policy, awareness of the screening tool, and manpower to complete the assessment. Strengths, weaknesses, opportunities, and threats (SWOT) analysis reveals that many of the staff members are reluctant to care for pediatric patients in an adult setting. The MSICU received the Gold Beacon Award for excellence in critical care nursing and the nurses have demonstrated the ability to adapt to a changing environment. The MSICU staff has successfully piloted many new innovative technologies and improvement practices (see Appendix D for SWOT analysis).
**Methodology**

To aid in the success of this improvement project an educational plan was developed to increase awareness of the policy, procedure, rationale, and process. Providing pediatric policy education will also help to bridge the gap between adult and pediatric care in a primarily adult intensive care setting. The objective and specific change will be to increase the compliance with the ASQ, from 60% to 90%.

Additional data supporting this process improvement theme comes from the daily suicide risk screening compliance report. This data revealed that the MSICU score is 80%, which is inclusive of both adult and pediatric patients in this unit. The acceptable benchmark for completion of a suicide risk assessment is 90% according to hospital policy. Further analysis performed by cross-referencing the unit logbook with the pediatric patients listed in the compliance report led to the conclusion that the MSICU was only 60% compliant within the pediatric population.

An appropriate change theory is necessary to facilitate successful process improvement. The change theory utilized for this project is Ronald Lippitt’s Change Theory, consisting of seven phases: “diagnosing the problem, assessing the motivation and capacity for change, assessing leaders’ motivation and resources, selecting an objective, choosing an appropriate change agent, maintain the change, and terminating the helping relationship” (Mitchell, 2013, p. 33). Mitchell compares Lippitt’s Change Theory to the nursing process of assessment, planning, implementation and evaluation. Utilizing a change theory provides a structured guideline to the improvement process and an increased likelihood of success (Mitchell, 2013).

The stakeholders of the project were identified as the CNL, nurse manager, PICU educator, PICU quality and safety champion, patients, physicians, and staff at the point of care.
Utilizing Lippitt’s first phase of change, diagnosing the problem, a focus group involving the CNL, PICU educator, and champion evaluated the Ishihara diagram and SWOT analysis as well as previously identified barriers to ASQ completion. This collaboration resulted in identifying the components to be included in the pre and post survey.

In the second and third phases of change, assessing motivation and resources, a survey was constructed and distributed to 29 of 34 registered nurses with a 100% completion rate. Included in the survey were demographic questions such as how long have they been in nursing, how long have they worked at UCDMC, and how long have they worked with pediatric patients. The survey then proceeded to assess the staff’s knowledge of the policy, existence, next steps, and comfort using the ASQ (see Appendix E for survey delivered to staff).

Objectives were identified in Lippitt’s fourth phase, and an educational plan was created from the responses in the survey. A power point presentation was developed based on the needs identified by the nurses in regard to the ASQ screening tool use and knowledge (see Appendix F for the PowerPoint presentation). The fifth phase identifies the change agent as the CNL in the role of educator and provides ongoing support of the project. The initial education sessions were targeted at the largest audience. The MSICU Unit-Based Practice Council (UBPC) and leadership group, consisting of a total of 14 staff members or 50% of the surveyed respondents, were educated. The learners were shown the ASQ tool, identification of suicide risk and assessment policy, how to properly document the completion of the tool, and the next steps to take when a patient screens positive. A brief question and answer period was held to clarify any details of the process and documentation. The remaining 14 staff members will be educated on a one-on-one basis. The sixth phase occurs post education and while the new change process is taking place. Support will be provided on an ongoing basis and the daily suicide risk screening
compliance report will continue to be monitored. When the measurable goal of 90% compliance with completing the ASQ is met, we will move into the seventh and final phase of terminating the helping relationship.

A post-survey will be distributed to the staff after all of the 29 respondents have been educated on the improvement process. A comparison between the pre- and post-surveys will be made to evaluate the effectiveness of the education presented.

**Data Source/Literature Review**

A microsystem defined by Harris, Roussel, and Thomas is a “small group of people who work together on a regular basis to provide care to discrete subpopulations including the patients” (2014, p. 84). The 8-bed MSICU is one such microsystem within the UCDMC, which is the site of this improvement project. The MSICU microsystem has its own culture and synergy that work at the point of care having a direct influence on the patient outcomes. The MSICU is currently one of eight nursing units in California that possesses the Gold Beacon Award for Excellence presented by the American Association of Critical-Care Nurses (AACN). The MSICU has successfully piloted the barcode medication administration (BCMA) implementation, the restraint use decision wheel, and ongoing electronic medical record (EMR) initiatives and upgrades that support its staff as superusers for the rest of the facility. The MSICU is considered a unit that is on the forefront of trialing new processes or technology. The UDCMC is a 631-bed, academic, Magnet designated, level I trauma center located in Sacramento, California. The mission statement of UCDMC states “improving lives and transforming health care by providing excellent patient care, conducting groundbreaking research, fostering innovative, interprofessional education, and creating dynamic, productive partnerships with the community” (“About Us”, 2017, para 1).
The Identification and Management of Patients at Risk For Suicide policy was revised in June 2017 and guides the staff in performing the suicide risk assessment screening of all patients greater than 10 years old within 24 hours of admission. The adolescent population between the ages of 10-18 are further singled-out to be questioned using the ASQ screening tool. The ASQ screening tool was developed following a study by Horowitz, et al. (2012) that evaluated the effectiveness of asking 17 suicide-screening questions to 524 patients. The purpose was to develop a brief suicide risk-screening tool that could be delivered in a minute or two. The result of the study found that four questions stood out above the rest as having both a high sensitivity and negative predictive value.

The articles in the following literature review discuss benefits and utilization of a suicide risk-screening questionnaire. A search of the Cumulative Index to Nursing and Allied Health Literature (CINHAL), PubMed, SCOPUS, and Google Scholar databases were conducted. The patient, intervention, comparison, and outcome (PICO) strategy search terms used for the search were, (1) P: adolescent suicide, (2) I: suicide risk screening tool, (3) C: suicide risk screening education, and (4) O: increase in percentage of ASQ completion within 24 hour of admission. Multiple searches yielded approximately 20 relevant articles published within the past 5 years. There were a few key authors who contributed to many of the articles found and have dedicated much time and research to the study of adolescent suicide-risk screening.

Horowitz et al. (2012), as mentioned above as one of the key authors in adolescent suicide risk screening, has contributed to many of the articles reviewed for this project. The article referenced above, “Ask Suicide-Screening Questions (ASQ): A Brief Instrument for the Pediatric Emergency Department”, discusses the implementation of a short four-question tool for nurses to administer when adolescents present to a medical facility for any medical reason.
In 2013, Horowitz et al. piloted the ASQ on 331 patients admitted to three adult medical units at the National Institutes of Health. The authors state that inpatient deaths by suicide happen in non-psychiatric units and all medical patients would benefit from being assessed for suicide risk. The goal was to test the ASQ questionnaire process and feasibility of screening in regard to impact on mental health resources, impact on workflow, prevalence, and patient/nurse acceptance. This was a quality improvement process that followed the plan-do-study-act approach. Success of the project was assessed with a post-survey presented to patients, nurses, and social workers rating their experience. Based on the feedback received in the surveys, the authors concluded that the experience was positive and those evaluated supported the use of a suicide risk assessment tool.

In addition, Horowitz et al. (2014) published another study based on the National Action Alliance for Suicide Prevention’s Aspirational Goal #2 of screening for suicide risk to individuals in diverse populations. The authors in this study focused on how this goal pertains to children, adolescents and young adults. The assumptions made are that children should not be treated as little adults and a suicide risk-screening tool should be tailored for youths at different developmental stages. The authors go on to recommend that a validated universal screening tool that nurses can be educated on will help to identify those adolescents at risk for suicide.

The Joint Commission (2016) weighed in on the subject of suicide risk assessment when they presented a “Sentinel Event Alert” titled “Detecting and Treating Suicide Ideation in all Settings”. They reported that as a national patient safety goal, suicide risk screening should be performed on all patients seen in a hospital. Furthermore, those identified to be at risk should be further evaluated and supported upon discharge.
Ballard et al. (2017) conducted a recent retrospective cohort study examining the use of the ASQ screening tool in an urban pediatric medical center. The populations studied were adolescents between the ages of 8-18 years presenting to the emergency department (ED) with psychiatric complaints. Two of the study goals were to look at nursing compliance with the use of the tool and whether adolescents with suicidal ideations would have gone undetected without use of the tool. The compliance rate was 79% and 53 % of the patients who screened positive did not present to the ED with suicidal complaints. The study purports that it would be beneficial to utilize the ASQ on all patients in order to identify those at risk for suicide who do not seek care for suicidal complaints.

Likewise, Boudreaux et al. (2016) conducted a large-scale quasi-experimental design study of the feasibility of screening for suicide risk and whether screening improves suicide risk detection. It took place over the course of five years within eight EDs from seven states and included over 236,000 participants. There were three phases involved: 1) treatment as usual, 2) universal screening, and 3) universal screening and intervention. In comparison to the treatment as usual group, detection rose from 2.9% to 5.7% in the screened group showing a twofold increase in detection of suicide risk with the implementation of a screening tool. The results of this study were extraordinary in that the findings showing a definite increase in suicide risk detection with universal screening has not been previously published.

In opposition to the previous studies, LeFevre (2014) reports on The United States Preventative Task Force (USPTF) recommendation on suicide screening. The USPTF makes decisions based on review of current evidence. The report identifies that suicide risk screening on all patients has not been shown to be effective. However, there is also no evidence showing potential harm in performing a suicide risk screening assessment. The current recommendation
of USPTF is to focus on those patients with known psychiatric disorders, risk factors for suicide, or those with high levels of emotional distress. Those patients have been shown to benefit for treatment following discharge from a hospital or facility known to be a high-risk period. This recommendation by the USPTF is counter to the recommendation put out by The Joint Commission and promotes subjective decision-making on the part of the physician rather than promoting addressing the issue of suicide with all patients.

And lastly, Shain (2016) discusses the American Academy of Pediatrics (AAP) report intended to guide pediatricians in the identification and management of adolescents at risk for suicide. The article examines the incidence of suicide among adolescents and the need for suicide risk screening questions. The AAP does not support a specific tool, but suggests that pediatricians ask the question of whether the patient has ever wanted to harm him or herself. If a patient answers positively, the recommendation is to further question and potentially make a mental health referral. The AAP, as with the USPTF above, states that the pediatrician should identify those adolescents who are at-risk for suicide based on whether they have mood disorders, psychosis, or are targets of bullying or victimization. The AAP report stresses that primary care pediatricians should be comfortable screening patients for suicide.

**Timeline**

The project, “To ASQ or Not to ASQ: A Suicide Risk Screening Improvement Project began September 2017 and will conclude at the end of April 2018 (see Appendix G for Gantt chart timeline). The project was conceptualized after a pediatric needs assessment survey was presented to the MSICU staff. The results showed an overwhelming desire for education. One area of interest was the pediatric overdose population. Suicide risk assessment data was retrospectively collected and revealed that the MSICU suicide risk assessment completion was
deficient at 60%. The project began in early September with the development of a Qualtrics survey questioning staff knowledge of the pediatric suicide risk screening tool, policy, and actions taken when patients screen positive. The survey was initially distributed on September 11th and collected over a period of two weeks. Twenty-nine of the 32 staff members were given the survey and all were completed and returned. On September 25th the data was entered into the survey manager. Based on the survey outcomes, an educational power point presentation was developed over the following week. On October 4th the educational presentation was presented to the leadership group consisting of three assistant managers (AN II) and four clinical nurse III’s (CN III). The AN II’s are in a mid-level management position responsible for performing charge nurse duties, mentoring, counseling, evaluations, interviews, scheduling and direct patient care. The CN III’s primary focus is on staff education, competencies, orientation of new nurses, and also direct patient care. On October 5th the educational power point was presented to seven members of the unit-based practice council (UBPC). Between the dates of October 5-27, the rest of the staff were educated on a one-on-one basis. The post-survey data was then analyzed to evaluate the effectiveness of the training intervention. Suicide risk assessment compliance data is reported daily and will be collected monthly from November 1, 2017 to April 30, 2018. During this six-month period, the CNL will continue to coach and support the staff in completing the ASQ.

**Expected Results**

The survey revealed that there were inconsistencies among the staff in regard to the utilization and familiarity with the ASQ. Fifty-percent of the respondents were familiar with the ASQ tool and only 5 (17%) of those who were familiar with the ASQ knew that a yes response required a psychiatric evaluation and social services consult. Twenty-four percent of the
respondents were unfamiliar with how and where to document the screening questions. The most prominent barrier to asking the risk screening questions was heavily weighted on parental presence. Upon delivering the educational power point, the largest discussion centered around how to talk to the adolescent and whether it should be done with or without the parents present. The staff had mixed feelings on this issue. Many scenarios were discussed and most frequently resulted in the conclusion that each situation will be different and the staff will have to rely on the relationship and family dynamics present at the time of the assessment. This led to the realization that more education may be needed for the staff in the area communication with adolescents and their parents.

**Nursing Relevance**

This CNL project can empower the bedside nurse to be an advocate for the patient. As a hospital policy and Joint Commission safety goal, the nurse is required to engage with the patient and complete the ASQ. Methods for communicating with the patient and their parents can be further evaluated and discussed. The results of the suicide risk screening assessment may reveal that the patient has had suicidal thoughts that can now be acted upon. This provides an element of patient safety and suicide prevention. The ASQ is a secondary prevention tool for nurses to utilize in identifying those adolescents at risk for suicide when presenting to a medical setting (Wilcox & Wyman, 2016). Wilcox and Wyman also report that up to 66% of patients who attempt suicide are seen by a medical professional within a month prior to death. This reveals that healthcare professionals, specifically nurses, are in a key position in which to assess the adolescent at risk for suicide, thus reducing this profound and tragic statistic.
Summary Report

The project “To ASQ or Not to ASQ: A Suicide Risk Screening Improvement Project” aims to improve compliance with the completion of the ASQ within 24 hours of admission to the ICU. This will be accomplished by assessing the current state of staff understanding of the ASQ questionnaire process and providing education to increase their knowledge and ability to perform the ASQ within the specified time frame. Education will provide staff with the knowledge and skills needed to accomplish the required screening questionnaire. The specific aim of this improvement project is to increase ASQ completion compliance by 30% to meet the hospital benchmark goal of 90% within 6 months. The increased compliance with completing the ASQ will assure that most adolescents will be screened for suicide risk and provided the appropriate intervention.

The objectives of the project will be attained through the process of educating the staff and correlates directly with the global aim of pediatric education. By working on the improvement process, the expected outcomes include increased compliance with the ASQ that will (a) identify patients at risk for suicide (b) ensure a safe environment for those identified as a suicide risk and development of harm prevention strategies, and (c) ensure that appropriate disposition and resources are provided for patients found to be at risk.

The site for the clinical nurse leader project is an 8-bed medical-surgical ICU located within a 631-bed academic, Magnet designated, level I trauma center located in Sacramento, California. The MSICU is currently one of eight nursing units in California that possesses the Gold Beacon Award for Excellence presented by the AACN. The population for the project included 29 of the 34 staff members currently employed in the MSICU. Three of the five nurses omitted from the project had limited work hours and the remaining two were on a leave of
absence making them unavailable to be present for the survey and subsequent education. The suicide risk assessment completion data was retrospectively collected on the pediatric population admitted to the MSICU between October 2016 and March 2017.

To facilitate this project, Ronald Lippitt’s Change Theory was used as guidance. According to Mitchell (2012), Lippitt’s seven phases model compares with the four elements of the nursing process: assessment, planning, implementation and evaluation. Mitchell also adds that Lippitt’s model includes a detailed plan for implementing change. The first three phases of change began the assessment stage, which included reviewing a needs assessment of the staff and survey on knowledge and practice using the ASQ tool. The next two phases encompass the planning stage and development of an educational plan. The sixth phase is when implementation of the project began, including the education and coaching of staff. The seventh and final phase evaluated the effectiveness of the training and need for further education. The baseline data showed poor compliance with completion of the risk assessment. A survey of the staff revealed that almost 50% were unaware of the ASQ tool. It is important to work on this now because the adolescent population continues to rise in the MSICU and we have identified a need to improve compliance with the suicide risk assessment screening.

Method and teaching aids used to implement the project were two group educational sessions and multiple one-on-one training sessions. A PowerPoint presentation was developed to provide the staff with background information on adolescent suicide, hospital policy, Joint Commission requirements, as well as screenshots of the electronic medical record areas of documentation (see Appendix F for educational PowerPoint slides). Coaching of the staff will be ongoing for the next six months at which time the compliance rates of the suicide risk assessment will be re-evaluated.
After the staff was educated on the policy, procedure, and rationale for performing the ASQ questionnaire a post-survey was distributed. In comparing the pre-survey to the post education survey, there was a significant increase in the knowledge acquired (see Appendix H for pre and post-survey comparison chart). In analyzing the survey data after the educational session, 100% of the staff noted that they were (a) familiar with the ASQ policy, (b) familiar with the ASQ tool, (c) familiar with the interventions after a patient screens positive, and (d) familiar with how to document the screening. The post-survey also showed an increase in the staff’s level of comfort in completing a suicide risk assessment. Feedback from staff revealed that further education would be useful in the area of risk assessment communication between the staff and the patients and their parents. Future steps will include educating the staff on risk assessment communication. A collaborative effort is currently underway between the pediatric nurse champion, the PICU Clinical Nurse III (CN III), and myself. We will begin working on an educational component for staff communication in regard to performing the ASQ and utilizing a parental information sheet (see Appendix I for parent information sheet).

The educational session proved to educate the nurses on the rationale, policy and ASQ tool, however, further data collection over the next six months will determine if that knowledge has been put into practice. The addition of communication education will provide more tools for the bedside nurse to utilize in completing the ASQ in a timely manner. Continued coaching from the CNL will be crucial to the success and improved compliance with the suicide risk screening assessment. The sustainability will require frequent audits and ongoing visual aids to support the staff in the next six months. Each month the suicide risk compliance report will show whether the project improvement is successful. A monthly plan, do, study, act (PDSA) cycle would be beneficial in conducting a test of the process change. The data will be collected, analyzed, and
evaluated to identify unexpected problems and observations (Nelson, Batalden, & Godfrey, 2007). Future projects will include expanding the education to other units caring for adolescents.

At this time, collaboration is underway between the MSICU CNL and PICU CN III to develop tools and education for improved communication with patients and families. Both units will continue to strive for increased suicide risk assessment compliance and eventually educate all units that have the potential for admitting adolescent patients.
References


Ask the patient:

1. In the past few weeks, have you wished you were dead?  ☑ Yes  ☑ No
2. In the past few weeks, have you felt that you or your family would be better off if you were dead?  ☑ Yes  ☑ No
3. In the past week, have you been having thoughts about killing yourself?  ☑ Yes  ☑ No
4. Have you ever tried to kill yourself?  ☑ Yes  ☑ No
   If yes, how? ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   When? ___________________________________________________________________
   ________________________________________________________________

If the patient answers **Yes** to any of the above, ask the following acuity question:

5. Are you having thoughts of killing yourself right now?  ☑ Yes  ☑ No
   If yes, please describe: ______________________________________________________

Next steps:

- If patient answers **No** to all questions 1 through 4, screening is complete (not necessary to ask question #5).
  No intervention is necessary (*Note: Clinical judgment can always override a negative screen*).
- If patient answers **Yes** to any of questions 1 through 4, or refuses to answer, they are considered a positive screen. Ask question #5 to assess acuity:
  - **Yes** to question #5 = acute positive screen (imminent risk identified)
    - Patient requires a STAT safety/full mental health evaluation.
    - Patient cannot leave until evaluated for safety.
    - Keep patient in sight. Remove all dangerous objects from room. Alert physician or clinician responsible for patient’s care.
  - **No** to question #5 = non-acute positive screen (potential risk identified)
    - Patient requires a brief suicide safety assessment to determine if a full mental health evaluation is needed. Patient cannot leave until evaluated for safety.
    - Alert physician or clinician responsible for patient’s care.

Provide resources to all patients:

- 24/7 National Suicide Prevention Lifeline 1-800-273-TALK (8255)  En Español: 1-888-628-9454
- 24/7 Crisis Text Line: Text “HOME” to 741-741
Appendix B

Cost Benefit Analysis

Table 1

<table>
<thead>
<tr>
<th>Components</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medical cost</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicides</td>
<td>$121</td>
<td>$26</td>
<td>$146</td>
<td>0.3</td>
</tr>
<tr>
<td>Nonfatal suicidal attempts</td>
<td>$1,149</td>
<td>$388</td>
<td>$1,537</td>
<td>2.6</td>
</tr>
<tr>
<td>Total (all self-inflicted injuries)</td>
<td>$1,270</td>
<td>$413</td>
<td>$1,684</td>
<td>2.9</td>
</tr>
<tr>
<td><strong>Indirect economic cost</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicides</td>
<td>$43,589</td>
<td>$9,458</td>
<td>$53,047</td>
<td>90.8</td>
</tr>
<tr>
<td>Nonfatal suicidal attempts</td>
<td>$3,196</td>
<td>$518</td>
<td>$3,714</td>
<td>6.4</td>
</tr>
<tr>
<td>Total (all self-inflicted injuries)</td>
<td>$46,785</td>
<td>$9,976</td>
<td>$56,761</td>
<td>97.1</td>
</tr>
<tr>
<td><strong>Total economic cost</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicides</td>
<td>$43,710</td>
<td>$9,483</td>
<td>$53,193</td>
<td>91.0</td>
</tr>
<tr>
<td>Nonfatal suicidal attempts</td>
<td>$4,346</td>
<td>$906</td>
<td>$5,251</td>
<td>9.0</td>
</tr>
<tr>
<td>Total (all self-inflicted injuries)</td>
<td>$48,056</td>
<td>$10,392</td>
<td>$58,445</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Authors' calculation.

*Items may not sum to totals due to rounding.

Table 2

<table>
<thead>
<tr>
<th>Age category (years)</th>
<th>Number of suicides</th>
<th>Average cost per suicide (in 2013 dollars)</th>
<th>Ratio: this study/WISQARS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>This study</strong></td>
<td><strong>WISQARS</strong></td>
</tr>
<tr>
<td>0–4</td>
<td>0</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>5–14</td>
<td>395</td>
<td>$1,795,378</td>
<td>$1,264,705</td>
</tr>
<tr>
<td>15–24</td>
<td>4,878</td>
<td>$2,012,476</td>
<td>$1,410,138</td>
</tr>
<tr>
<td>25–44</td>
<td>12,899</td>
<td>$1,837,842</td>
<td>$1,225,050</td>
</tr>
<tr>
<td>45–64</td>
<td>15,756</td>
<td>$1,058,304</td>
<td>$625,188</td>
</tr>
<tr>
<td>65–74</td>
<td>3,794</td>
<td>$243,883</td>
<td>$175,739</td>
</tr>
<tr>
<td>75+</td>
<td>3,421</td>
<td>$662,218</td>
<td>$78,673</td>
</tr>
<tr>
<td>Unknown</td>
<td>6</td>
<td>$1,329,553</td>
<td>$1,033,346</td>
</tr>
<tr>
<td>All ages</td>
<td>41,149</td>
<td>$1,329,553</td>
<td>$858,981</td>
</tr>
</tbody>
</table>

Note. Cost estimates both for this study, which were based on Corso, et al. 2007, and for WISQARS from national cost of injury reports, 2010 (CDC, 2015a) are expressed in 2013 dollars. For deaths with age unknown, the average of all ages was used.

Appendix C

Ishikawa Diagram
Appendix D

SWOT Analysis

<table>
<thead>
<tr>
<th>INTERNAL</th>
<th>BENEFICIAL</th>
<th>HARMFUL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td>1. Policy in place</td>
<td>1. Knowledge deficit</td>
</tr>
<tr>
<td></td>
<td>2. MSICU high standards: Gold Beacon unit/strong leadership/UBPC</td>
<td>2. Adult trained nurses caring for pediatric patients</td>
</tr>
<tr>
<td></td>
<td>3. Add Ask Suicide Risk Screening (ASQ) to pediatric admission checklist</td>
<td>3. Intermittent population/lack of routine.</td>
</tr>
<tr>
<td>INTERNAL</td>
<td><strong>Opportunities</strong></td>
<td><strong>Threats</strong></td>
</tr>
<tr>
<td></td>
<td>1. Joint Commission requirement to have suicide risk assessment</td>
<td>1. Need to comply or face penalty</td>
</tr>
<tr>
<td></td>
<td>2. Assistance of pediatric educator</td>
<td>2. Task overload/workflow</td>
</tr>
<tr>
<td></td>
<td>3. Ability to expand teaching to other pediatric areas and adult population in MSICU.</td>
<td>3. Competing priorities</td>
</tr>
</tbody>
</table>
Suicide screening assessment survey

Start of Block: Suicide risk screening assessment survey

Q1 How long have you been in nursing?
   ○ 0-5 years
   ○ 6-10 years
   ○ 11-15 years
   ○ 16-20 years
   ○ >20 years

Q2 How long have you worked at UC Davis Health?
   ○ 0-5 years
   ○ 6-10 years
   ○ 11-15 years
   ○ 16-20 years
   ○ >20 years
Q3 How long have you worked with pediatric patients?

- 0-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- >20 years

Q4 Are you familiar with the Identification and Management of Patients at Risk for Suicide Policy?

- Yes
- No

Q5 Are you familiar with the suicide risk screening questions for pediatrics - ASQ tool?

- Yes
- No

Q6 If you answered yes to question #5, have you completed the suicide risk screening questions-ASQ?

- Yes
- No
- N/A
Q7 Are you familiar with the interventions for pediatric patients who answer yes or refuse to answer the suicide risk screening questions - ASQ?

- Yes
- No

Q8 Are you familiar with how to document that a patient is unable to respond to the suicide risk screening questions - ASQ?

- Yes
- No

Q9 Would you be comfortable asking four questions to pediatric patients to screen for potential suicide risk?

- Extremely comfortable
- Moderately comfortable
- Slightly comfortable
- Neither comfortable nor uncomfortable
- Slightly uncomfortable
- Moderately uncomfortable
- Extremely uncomfortable
Q10 What are your perceived barriers to asking pediatric patients questions regarding risk for suicide?

☐ Time constraints/staffing
☐ Patient's level of consciousness
☐ Parental presence
☐ Personal beliefs
☐ Level of comfort
☐ Other - see question #11

Q11 Is there anything else you would like to add?

______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

End of Block: Suicide risk screening assessment survey

Thank you for your participation!
Appendix F

Educational PowerPoint

T7 MSICU GOLD

PEDIATRIC SUICIDE RISK SCREENING ASSESSMENT

ASQ

MICROSYSTEM ASSESSMENT

- Second highest population is pediatrics
- Staff needs survey showed education needs
- Suicide is a primary admission diagnosis for pediatrics
- Suicide risk assessment compliance report at 60%
  - Goal compliance 90%
RATIONALE FOR SCREENING

- Suicide is the second leading cause of death among children 10-19 years old.

- “most individuals who die by suicide have visited a health care provider in the year before their death, most within the prior 3 months.”

THE JOINT COMMISSION

- National Patient Safety Goal 15.01.01
  - Conduct a risk assessment that identifies specific patient characteristics and environmental features that may increase or decrease the risk for suicide.

- The Joint Commission, 2016


Identification and Management of Patients at Risk for Suicide Policy IV-16

C. Inpatient Pediatric Patients
1. All patients age 10 years to 18 years of age will be screened by the RN using the ASQ Ask Suicide Screening Questions.
2. This assessment will occur within 24 hours of admission and any time the RN assesses a need for reevaluation.
3. For any affirmative response or if the patient refuses to respond, the RN will notify the MD/DO/NP/PA. The MD/DO/NP/PA will obtain a psychiatric consultation, initiate direct observation of the patient and request a special duty caregiver.
4. In addition, with any affirmative response or refusal to respond, the RN will place a nursing order for a social work consult.
5. The Charge RN will be notified by the bedside RN of any patient with an identified suicide risk.
6. If psychiatry determines that a 5150 application is appropriate they will indicate that the continued need for a special duty caregiver, place the hold once the patient is medically cleared, and continue to follow the patient throughout the hospitalization or until the acute psychiatric symptoms and suicidality have resolved.
7. If psychiatry determines that no hold is needed, they will discuss a home safety plan and/or refer the patient and family to the appropriate outpatient resources.

Answering ‘yes’ to at least one question constitutes a positive screen that should trigger a more extensive evaluation of patient’s risk for suicide

1. In the past few weeks, have you wished you were dead?
   Yes ___ No ___ No response ___

2. In the past few weeks, have you felt that you or your family would be better off if you were dead?
   Yes ___ No ___ No response ___

3. In the past week, have you been having thoughts about killing yourself?
   Yes ___ No ___ No response ___

4. Have you ever tried to kill yourself?
   Yes ___ No ___ No response ___

If yes, how?

When?

Patient name: __________________________ Date: __________________________

Medical record # (or patient label): __________________________
Questions?
Appendix G

Project Timeline

9/3/17 10/23/17 12/12/17 1/31/18 3/22/18 5/11/18

- Develop Survey
- Distribute Pre Survey
- Survey Data Entry
- Develop Educational PowerPoint
- Begin Education of Staff
- Distribute Post Surveys
- Survey Data Entry
- Begin Monitoring Daily ASQ

Start Date
Duration
Appendix H

Are you familiar with the Identification and Management of Patients at Risk for Suicide Policy?

Are you familiar with the suicide risk screening questions for pediatrics – ASQ?

Are you familiar with how to document that a patient is unable to respond to the suicide risk screening questions – ASQ?

Are you familiar with how to document that a patient is unable to respond to the suicide risk screening questions – ASQ?
Would you be comfortable asking four questions to pediatric patients to screen for potential suicide risk?

What are your perceived barriers to asking pediatric patients questions regarding risk for suicide?
Your child’s health and safety is our #1 priority. New national safety guidelines recommend that we screen children and adolescents for suicide risk.

We will ask you to step out of the room for a few minutes so a nurse can ask your child some additional questions about suicide risk and other safety issues in private.

If we have any concerns about your child’s safety, we will let you know.

Suicide is the 2nd leading cause of death for youth. Please note that asking kids questions about suicide is safe, and is very important for suicide prevention. Research has shown that asking kids about thoughts of suicide is not harmful and does not put thoughts or ideas into their heads.

Please feel free to ask your child’s doctor if you have any questions about our patient safety efforts.

Thank you in advance for your cooperation.