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Suicide Prevention in the Non-Psychiatric Hospital Setting: A Nurse Education Process

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Suicide Prevention in the Non-Psychiatric Hospital Setting:

A Nurse Education Process

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By

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Abstract

Background/Purpose. Numerous studies indicate that nurses and other healthcare professionals receive little or no suicide-related education or training. Unfavorable attitudes about suicide can also negatively influence caregiver behaviors and impact patient care. Evaluations of Applied Suicide Intervention Skills Training (ASIST) as a gatekeeper training intervention consistently demonstrate enhanced knowledge, more favorable attitudes, and increased intervention skills. This project aimed to conduct a small-scale pilot of ASIST for hospital nurses, effect suicide education policies, and prevent suicide sentinel events at the project site.

Design. A single comparison group pre/post testing design was used.

Methods. A combination of purposive and network sampling was used to recruit nurses and other professional disciplines within a regional healthcare system in Upstate New York. Pretest and post-test questionnaires were used to collect primary quantitative data to evaluate suicide-related knowledge and attitudes, and satisfaction with ASIST. Descriptive statistics and frequencies were performed for demographic, professional and personal experience with suicide, prior suicide education/training and satisfaction with ASIST. Paired *t* tests were performed to determine differences in suicide-related knowledge and attitudes.

Results. Thirty participants completed the ASIST intervention, 29 completed the pre and post-test questionnaires. Mean post-test scores for knowledge and attitude increased by 13.1% and 11% respectively. Satisfaction scores for ASIST exceeded the desired outcome threshold. This small-scale pilot of ASIST supports a case to advance organizational suicide training efforts. The voluntary participation of non-nursing professionals such as social work, pastoral care, academia, and behavioral health, affirms the larger need for workforce development. The under-representation of nurses participating in this suicide education process corresponds to the Adapt

phase of the Adopt, Adapt, Evolve framework to develop clinical competency across disciplines and speaks to a need for long-term system change.

Conclusions & Implications. With the persistence of suicide as a leading cause of death, having a competent clinical workforce is critical to prevention efforts. Accomplishing this goal will require efforts on multiple levels. Health care systems must be willing to commit the necessary resources to support organization-wide policies and procedures to mandate cross-discipline suicide prevention training. Mandatory staff development and continuing education for license renewal can serve as vital catalysts for individuals, disciplines, and employers and drivers of policy change.

Keywords*:* nursing, suicide, education, competency, system change, continuing education.

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Problem

Although a wide range of health care professionals come into contact with individuals at risk for suicide in a variety of health care settings, a majority of clinicians have little training to confidently and competently deal with a clinical situation to prevent suicide (National Action Alliance for Suicide Prevention [NAASP], 2014). For many nurses, their foundational, and sometimes only instruction related to suicide, occurred during the basic nursing education program. Unlike inpatient psychiatric facilities, general hospital units are not designed or typically staffed by professionals with specialty training in suicide prevention. Patients who die by suicide on general hospital units typically do not have a known history of psychiatric illness, a history of previous suicide attempt, or suicidal behavior (The Joint Commission [TJC], 2010; Tishler & Reiss, 2009).

Nurses employed at the health care system where this scholarly project was implemented complete a brief suicide self-study module during orientation. No further suicide-related training or continuing education is mandated or provided by the organization.

At the site of this scholarly project, a recent merging of three hospitals into one health system has led to significant organizational restructuring and consolidation of services. Consequently, patients, including many with acute and chronic mental illness are receiving emergency, acute inpatient, surgical, and other health services at an alternate hospital location. The hospital to which these patients are being diverted is working hard to respond to the increased demands and challenges, not the least of which is space, staffing, and safety. With an increase in non-psychiatric inpatient suicide sentinel events and identified gaps in suicide-related knowledge among nurses, suicide prevention and education have emerged as priority needs

within the health care system (Arnot*Health*, 2011).

While the scope of this scholarly project cannot address the larger need for suicide-related training for all health care professionals within the organization, it can serve as a beginning step or foundation upon which to build and sustain a more inclusive and comprehensive education process.

Problem Change

This project initiated an education process in suicide prevention for nurses and other health care professionals within a regional health care system. The aims of this project were to (a) conduct a small-scale pilot of Applied Suicide Intervention Skills Training (ASIST) for hospital nurses, (b) advance evidence-based suicide education policies and practices, and (c) prevent suicide sentinel events on general hospital units. ASIST, an evidence-based gatekeeper training, can serve as an effective strategy in a comprehensive education process to develop a competent and confident clinical workforce which is critical to prevention of suicide attempts and deaths in the acute care hospital setting (Bolster, Holiday, O'Neal, & Shaw, 2015; Evans & Price, 2013; Neville & Roan, 2013).

Background

Suicide is recognized as an important public health issue and preventable cause of death. The Centers for Disease Control and Prevention (2014) reported the rate for the top ten leading causes of death had either decreased or remained steady except for suicide which is the tenth leading cause of death in the United States. From 1999 to 2014, the age-adjusted suicide mortality rate in the United States increased 24%, from 10.5 to 13.0 per 100,000 population, with the pace of increase greater after 2006 (Curtin, Warner, & Hegegaard, 2016).

According to the NAASP (2014):

> It has been well documented in the literature that clinicians from a wide range of professions will encounter individuals at risk for suicide, many do not have confidence in dealing with such challenges, and a majority of clinicians, in various settings, have minimal to no training to competently deal with a clinical situation to prevent suicide (p.3).

Indeed, a survey of licensed nurses employed at the project site to establish a baseline understanding of knowledge, attitudes, and beliefs about suicide prevention, confirmed that licensed nurses (LPN, RN, APN) had little if any current training in suicide prevention and 65% of respondents scored below 79% on the knowledge portion of the survey (Arnot*Health*, 2011).

Suicide has ranked among the top three sentinel events reported to TJC for more than 15 years and has been identified as a Hospital National Patient Safety Goal (Adams, 2013; TJC, 2016). TJC (2010) pointed out that unlike inpatient psychiatric facilities, general hospital units are not designed or staffed by specially trained professionals to deal with suicidal patients. Tishler and Reiss (2009) suggested that patients who die by suicide on general hospital units have a differing risk profile than patients from psychiatric units or those in the community setting. Three patient groups that may be at increased risk on general units include 1) patients recovering from a suicide attempt who are not admitted to a psychiatric unit, 2) patients who are experiencing delirium and/or dementia that is associated with agitation and impulsivity, and 3) patients who are overwhelmed by their chronic or newly discovered medical illness. Precipitating factors may include depression, pain, physical distress, high levels of perceived stress brought about by poor relationships with staff and family members, divorce, bereavement, loneliness, loss of function, loss of financial independence, and a poor prognosis (Tishler & Reiss, 2009).

In addition, system factors in general hospital settings that can contribute to suicide events include insufficient staffing; inadequate screening and assessment, care planning and observation; insufficient staff orientation and training; poor staff communication; and lack of information about suicide prevention and referral resources (TJC, 2010; Tishler & Reiss, 2009). Further, studies also suggest that unfavorable attitudes of nurses toward suicide negatively impact health care delivery and patient safety (Bolster et al., 2015; Neville & Roan, 2013; Ouzouni & Nakakis, 2013; Talseth & Gilje, 2011).

In a critical interpretative synthesis that included 26 peer reviewed qualitative nursing studies focusing on attitudes toward suicide and suicidal patients, knowledge, interventions, or skills related to suicide, Talseth and Gilje (2011) identified four key concepts. The concepts of (a) critical reflection, (b) attitudes, (c) complex knowledge and professional role responsibilities, and (d) desire for support and resources emerged from this interpretative synthesis and can serve as a framework for understanding nurses' response to suicide and suicidal patients. Nurses' understanding and self-awareness of these concepts can help to shed light on individual attitudes toward suicide and modulate the nurse's positive or negative contribution to the stigma often associated with suicide (Talseth & Gilje, 2011).

Smith, Silva, Joiner, & Covington (2014) demonstrated an association between the evidence-based gatekeeper suicide training programs Applied Suicide Intervention Skills Training (ASIST) and Question, Persuade, and Refer (QPR) with greater knowledge and skills related to suicidal behaviors. Several studies correlated factors of suicide prevention education, younger age, and graduate education with more favorable attitudes toward suicide, attempted suicide, and suicide education (Brunero, Smith, Bates, & Fairbrother 2008; Neville & Roan,

2013; Ouzouni & Nakakis, 2013). In totality, this evidence supports the need for education of all hospital nurses to enhance suicide-related knowledge, attitudes, and skills.

Theoretical Model

Hildegard Peplau's theory of interpersonal relations was used as a framework for this scholarly project to explain factors that may influence the nurses decision-making and actions in relation to patients with known and unknown risk for suicide (Nelson, 2011). The purpose of Peplau's theory is to facilitate the development of rapport, trust, and problem-solving within the context of the nurse and patient relationship using therapeutic interaction and education (Tourville & Ingalls, 2003). Peplau described the patient as one who needs and seeks the services of the nurse to help solve health problems. The patient wants respect, personal dignity, and to be heard. The nurse, therefore, needs to be empathetic, observant, and hear what the patient does or does not say, to apply theoretical concepts, and determine what intervention to pursue. The relationship between the patient and the nurse is the basis of therapeutic nursing practice and all aspects of patient care center around that relationship (Douglas, Sowell, & Phillips, 2003).

According to Peplau's theory, development of the therapeutic nurse-patient relationship occurs in four separate but overlapping phases including orientation, identification, exploitation, and resolution (Nelson, 2011). Building rapport and developing trust are the critical tasks of the orientation phase which corresponds to the assessment phase of the nursing process and is considered foundational to nursing care. The therapeutic accomplishments of all subsequent phases in the nurse-patient relationship development process are predicated upon the rapport and trust that is created during the orientation phase. Patidar (n.d.) identified factors that may either support or inhibit development of rapport and trust between the nurse and patient during the orientation phase that include the personal values and beliefs, culture and race, past experiences,

and expectations that both the nurse and the patient bring to the relationship (see Appendix A). These factors all contribute to the formation of our attitudes as individuals and as nurses (Patidar, n.d.).

Central to Peplau's theory and the therapeutic nurse-patient relationship is the importance of self-awareness among nurses (Rasheed, 2015). Self-awareness is the continuous process of understanding and knowing one's own identity, beliefs, values, motivations, feelings and behaviors and to recognize how they affect others in different ways. Effective suicide prevention education has been shown to improve suicide-related knowledge, self-awareness, and attitudes (Bolster et al., 2015; Neville & Roan, 2013).

Project Framework

According to the NAASP (2014) "the very nature of this work is a long-term effort, each phase representing a series of micro-transformations leading to a long term view which is to advance training efforts and the competency of clinicians across disciplines for a system 'effect' …" (p. 26). The NAASP espouses a three-phase system change approach to develop an enabled clinical workforce: Adopt, Adapt, and Evolve (see Appendix B).

This three-phase approach engages and mobilizes stakeholders and increases in magnitude of effect over time. Phase I: Adopt describes well the problem of interest addressed by this scholarly project as a starting point to affect organizational change. It involves increasing awareness of suicide prevention as an organizational priority and the widespread lack of a competent, capable workforce; affirming the need to train clinicians and establishing a pathway for key stakeholders to own their role and take action. Phase II: Adapt is the skills acquisition phase during which the organization or discipline ascertains what works for them. During phase two, training pilots are conducted by early adopters and are shared within the discipline and

organization as a means to monitor progress toward adaptation. Phase III: Evolve represents the long-term system change perspective. This includes evolution of evidence-based education and practices within the discipline and organization, cross-discipline collaboration, and more efficient and effective systems of education and care delivery to better serve persons with known and unknown risk of suicide (NAASP, 2014).

The NAASP (2014) three-phase approach to clinical workforce preparedness was used as a framework for this scholarly project to explain and predict the micro-transformations that will result in system change at the project implementation site. Key Adopt activities such as increasing awareness of suicide prevention as a priority, affirming the need for workforce development, and engaging stakeholders were accomplished during the planning phase of this project. Adapt activities were partly achieved through the project implementation and evaluation of the Applied Suicide Intervention Skills Training curriculum. Lastly, the Evolve phase represents the long-term system change that will be required to build and sustain training efforts and the competency of clinicians across disciplines at the system level.

Implementation Process Analysis

Setting. Arnot*Health*, a not-for-profit regional health care system serving the southern tier of New York and the northern tier of Pennsylvania served as the implementation site for this scholarly project. This health care system provides diagnostic, primary, secondary and tertiary care as well as addiction, psychiatric, rehabilitative, and community services (Arnot*Health*, 2016).

Economic, social, and political environment. The organization has undergone significant growth, restructuring, and leadership transformation in the past several years. During this period of instability and change, a mounting culture of secrecy, insecurity, and hostility

infiltrated the organization. However, a sense of organizational stability has begun to reemerge and strategies to redesign leadership and improve communication are underway. There are signs of renewed energy and commitment to the shared vision and organizational values of excellence, patient-centered health care, compassion, teamwork, and integrity.

In addition to a more favorable organizational culture, implementation of this project was influenced by a positive assessment of organizational readiness. Indicators of organizational readiness included (a) the need for suicide prevention education was recognized by nursing leadership within the organization and requested as the focus of this scholarly pursuit, and (b) elevation of suicide prevention as a health and safety priority at the federal, state, and organizational levels.

Despite indications of a favorable organizational culture and readiness, critical real-time organizational support required during project implementation fell short. Changes in nursing leadership and a critical shortage of hospital staff nurses resulted in limited release time and availability of the target population to participate in the ASIST workshops.

Target population. The target population initially defined for the project included a mix of unit directors, supervisors, clinical coordinators, nurse educators, and unit-based staff nurses working on general inpatient units within the organization. Management level nurses were included in the target population because they serve as consultants and supporters for frontline nurses in the hospital setting. Actively engaging nurse managers in this beginning phase of the nurse education process was also considered a strategic step in building the necessary support to grow and sustain the effort.

Despite rigorous recruitment efforts in the months and weeks prior to implementation, the number of nurses signing up to attend the ASIST workshops was less than expected. Key nurse

administrators were called upon to facilitate workshop attendance by nurses in the target population. A secondary recruitment surge was undertaken through the use of network sampling. Network sampling is a non-probability sampling technique that utilizes existing networks to identify others with characteristics similar to those of the target population (Fain, 2013). The network sample included registered nurses, nursing faculty, social workers, case managers, and behavioral health and pastoral care professionals both within and outside of the organization.

Implementation strategies. Key strategies used in the implementation of this change project included (1) identifying and engaging organizational leaders and stakeholders to gain project buy-in and credibility, and to leverage resources essential to project successes; (2) mobilizing a project advisory team made up of key internal and external stakeholders to provide input and support problem-solving and decision-making during project planning and implementation; (3) adopting an evidence-based suicide education curricula for project implementation; (4) partnering with key internal and external stakeholders to coordinate delivery of two ASIST workshops; and (5) outreach and recruitment of the target population to participate in ASIST workshops scheduled in June and July. Expanding the target population to include registered nurses and other disciplines necessitated expanded outreach and recruitment efforts both within and outside of the organization.

Questionnaires. A single comparison group pre/post testing design was used to evaluate an evidence-based suicide education intervention for nurses and other care disciplines. Pre and post-test questionnaires were developed using selected items from two existing questionnaires identified in the research literature with documented validity and reliability testing (Chen, Moore, & Gibbs, 2009; Neville & Roan, 2013; Ouzouni & Nakakis, 2009, 2013). The questionnaires were pretested with six registered nurses and five content experts prior to

implementation. The cognitive techniques of think-aloud and verbal probing were used to guide the pretesting process and refine the questionnaires (Collins, 2003; Drennan, 2003).

The pre and post-test questionnaires were used to collect primary quantitative data to evaluate changes in knowledge and attitudes before and after the suicide education intervention. The pre-test questionnaire also provided a means to collect participant demographic data and the post-test questionnaire included items to evaluate participant satisfaction with ASIST. A space for workshop participants to write-in comments or feedback was also provided following the 10-item satisfaction section on the post-test questionnaire (see Appendix C).

Program outcomes. Outcomes are the desired changes or results of a project (Kellogg, 2004). Outcomes can be short-term, intermediate-term, or long-term. The short-term outcomes reflect the more immediate change or achievement that results from the project intervention. The short-term outcomes for this project were to measure changes in knowledge and attitude before and after ASIST and to evaluate ASIST for broader implementation at the project site. The long-term outcomes were to build organizational capacity and effect change in suicide education policy for nurses at the project site.

The outcomes for this project were to:

1. Achieve a participant completion rate of $\geq$ 75% for the two-day ASIST workshops as measured by attendance logs.
2. Describe and summarize the characteristics of ASIST workshop participants to include age range, gender, race, primary work site, current position, level of education, previous suicide prevention education/training, and professional and personal experience with suicide as reported on pretest questionnaires.

3. Increase suicide-related knowledge scores by at least 10% as measured by 12 true/false & multiple choice items on matched pretest and post-test questionnaires completed before and after attending 2-day ASIST workshop.
4. Increase suicide-related attitude scores by at least 10% as measured by the rating of 20 suicide belief statements on a 5-point scale from strongly disagree (1) to strongly agree (5) with scores < 3 indicating less favorable and scores > 3 indicating more favorable on matched pretest and post-test questionnaires.
5. Evaluate participant satisfaction with ASIST intervention with a minimum desired score of at least 40 points as measured by the rating of 10 satisfaction items using a 5-point scale from strongly disagree (1) to strongly agree (5) on post-test questionnaire completed at the conclusion of 2-day ASIST workshop.
6. Effect system change at the project site as evidenced by approval of a revised education policy mandating suicide prevention education for nurses upon hire with annual updates within 12 months of project completion.

Each of the six program outcomes was correlated with the outcome instrument data, analysis goal, and analytic technique to summarize the outcome evaluation framework for this project (see Appendix D).

Project evolution. A SWOT analysis conducted during the project planning phase helped to evaluate the internal strengths and weaknesses and external opportunities and threats to the project (see Appendix E for SWOT Analysis). Despite intensive efforts to maximize the strengths-opportunities and mitigate weaknesses-threats to the project, workshop attendance by the intended target population of nurses was disappointing. While it may not be possible to determine the exact cause of the participation shortfall, contributing factors may include (a) the

target population not recognizing the need or valuing the suicide education intervention, (b) critical staffing constraints, (c) length of training, and (d) a lack of organizational support for release time to enable participation.

Another barrier to participation of the target population in the ASIST education intervention concerns standards for continuing education (CE) and professional development at the state and organizational levels. Despite a longstanding debate about whether CE should be mandatory or voluntary, the number of states requiring CE for nurse relicensure is increasing (Brunt, 2001). The number of contact hours for relicensure varies from a low of five hours per year to a high of 45 hours every 3 years. New York State requires only three contact hours in infection control practices every four years for renewal (New York State Education Department, 2014). For registered nurses licensed in New York State, the limited contact hour requirement may diminish motivation to pursue CE and professional development opportunities. Further, organizations employing registered nurses licensed in New York State have less incentive to support such endeavors on behalf of their employees.

Quality Assurance

Institutional Review Board. Prior to implementation, the scholarly project was approved by the Institutional Review Board (IRB) at Boise State University (see Appendix F). A letter of understanding was obtained from Arnot*Health* prior to implementation of the project and the signed letter was included in the IRB application (see Appendix G). The approved Boise State University IRB application was submitted to Arnot*Health* and accepted without further review.

Protecting the anonymity, confidentiality, and privacy rights of program participants is paramount to upholding the standards and ethics that guide the work of investigators (Hatry,

Newcomer, & Wholey, 2015). This is particularly important in the conduct of research or evaluation studies involving human subjects. In an effort to uphold and assure application of ethical standards and the protection of human subjects, this author completed mandatory elements of the Social and Behavioral Researchers, Basic Course through the Collaborative Institutional Training Initiative (CITI) during the planning phase of the project (CITI, 2014).

To protect participant anonymity, the pre and post-test questionnaires for the project were designed to be completed anonymously without personal identifiers. As a means to match the pre and post-test responses of individual participants, participants created a unique code made up of a two-digit birth month, two-digit day of birth, and first two letters of mother's maiden name. Completed questionnaires were secured in a locked file for transport and secure storage. Database software was utilized to collect and analyze evaluation data. All databases were password protected and stored securely in a way to protect data integrity and confidentiality (Hatry et al., 2015).

Threats to quality. For experienced professional nurses, participation in the suicide prevention education process posed minimal risk to the participants. However, due to the sensitive and possible personal nature of the topic, measures to address participant distress were incorporated into the project protocol. Protocols to address immediate needs as well as follow-up and referral were in place and communicated in writing and verbally to workshop participants at the beginning of each workshop day. The protocols were particularly important as the target population was broadened to include non-employees for whom follow-up and referral might be more variable.

As the project was deemed to present no more than minimal risk of harm to the participants, informed consent was obtained using a cover letter consent document attached to

the pretest questionnaire. Opt-out provisions were explained in the cover letter consent and the completion and submission of the pretest and post-test questionnaires constituted participant consent. Workshop participants were provided with a print copy of the informed consent prior to the start of the workshop.

To further protect the participants from harmful effects, a debriefing statement was included at the end of the post-test questionnaire to clarify the project purpose and objectives and correct misconceptions about the project. The debriefing statement included (a) a description of the project purpose, objectives, study design and methods; (b) how the pretest and post-test questionnaire response data would be used; (c) contact information for resources to address adverse effects that may result from participation; and (d) references for further information on the project topic. Participants were provided with a print copy of the debriefing statement upon completion of the workshop (see Appendix C).

Results/Outcomes Analysis

Techniques for data collection and analysis. Principle sources of data for the project included (a) pre and posttest questionnaires completed by participants immediately before and after the two-day ASIST workshop and (b) attendance tracking logs. Survey Monkey and Excel programs were used to manage and analyze project data.

Outcome evaluation analysis. ***Completion rate*****.** Achievement of a high participant completion rate for the two-day ASIST workshop was considered key to achieving all subsequent outcomes. The indicator or measureable approximation for this outcome was to achieve a completion rate of at least 75% among ASIST workshop participants as measured by the attendance tracking logs. Completion rates were calculated and reported as a percentage of the total number of workshop participants that signed in on the first workshop

day.

Two 2-day ASIST workshops were conducted at Arnot*Health*, one at the St. Joseph's Hospital (SJH) campus and one at Arnot Ogden Medical Center (AOMC). The workshops were conducted one month apart and participants self-assigned to the workshop location of their choice. Thirteen participants attended the workshop at AOMC and 17 at the SJH location for a total of 30 participants. All 30 participants completed the full 2-day workshop at each location for a completion rate of 100%. Twenty-nine participants completed both pre and post-test questionnaires and one participant opted-out by not completing either a pre or post-test questionnaire. The total number of completed and matched pre and post-test questionnaires for analysis was 29.

Participant characteristics. The second outcome was to describe and summarize ASIST workshop participant characteristics reported on pretest questionnaires. Descriptive analyses were expanded in order to capture characteristics of non-nurse participants that were not initially anticipated (see Appendix H).

Participants were predominantly female (75%), over 40 years of age (76%), with a Master's degree or higher (62%). Twenty-one (72%) participants were employed at Arnot*Health* in various job titles associated with nursing (52%), social work (28%), or pastoral care services (20%). Eight other non-Arnot*Health* employee participants (28%) reported their primary work site as state or federal correctional facility, mental health peer support organization, youth advocacy center, university, or family social services setting. Current position was reported as chaplain, nurse educator, behavioral specialist, and mobile therapist. Years of professional experience reported by all participants ranged from two to 52 years.

Eight (28%) participants reported no previous training or education in suicide

prevention. However, from the 21 (72%) who had been trained, seven (33%) had completed training five or more years ago (see Appendix I). Twenty-three (79%) participants reported experience providing care to a patient or person who attempted suicide and eight (29%) to a patient or person who died by suicide. Eighteen (64%) participants reported having a friend or family member who attempted suicide and 16 (55%) having a friend or family member die by suicide. Ten (34%) participants reported that they had personally considered suicide (see Appendix J).

Suicide-related knowledge. The third outcome to increase suicide-related knowledge was measured by comparing individual and group responses to 10 true-false and multiple choice items on the matched pre and post-test questionnaires. The mean pretest score for suicide-related knowledge was 63.8 and the mean post-test score was 76.9. The 13.1% increase in mean post-test score compared to the mean pretest score was statistically significant ($n=29$; $t(2)=2.05$; $p<0.05$; CI 6.1, 20.1).

Suicide-related attitudes. The fourth outcome to enhance suicide-related attitudes was measured by comparing individual and group responses to 20 statements reflecting attitudes about suicide on the matched pre and post-test questionnaires. Pre and post-test scores for attitude were measured on a 5-point Likert-type scale with scores < 3 indicating less favorable and scores > 3 indicating more favorable. The mean total pretest score for attitude of 3.5 was compared to the mean total post-test score of 3.9. The 11% increase in mean score for attitude was statistically significant ($n=29$; $t(2)=2.1$; $p<0.05$; CI 0.2, 0.7).

Satisfaction with ASIST. To evaluate the fifth outcome participant satisfaction with the ASIST suicide education intervention, responses to 10 statements using a 5-point Likert-type scale of strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5) on the

post-test questionnaire were analyzed. The desired threshold for ASIST workshop satisfaction was set at 80% of participants reporting a satisfaction score of at least 40. Post workshop satisfaction scores ranged from 44.8 to 48.3 with a mean score of 46.5 thus exceeding the desired satisfaction threshold.

Fifteen workshop participants wrote in additional comments or feedback on the post-test questionnaire. Participant comments included "This was the best training of any kind that I have attended" and "Can't say enough about this training...everyone should have it". All comments reflected a high degree of satisfaction with the workshop and trainers and good use of time.

Suicide education policy and practice change. The final system change outcome for this project focused on nursing policies and practices related to suicide education requirements. This outcome corresponds with the Adapt phase of the system change framework suggested by the NAAPS (2014). Adapt is the skills acquisition phase during which organizations or disciplines ascertain what works for them. This system change outcome will be measured by approval of a revised education policy at *ArnotHealth* mandating suicide prevention education for nurses upon hire with annual updates within 12 months of project completion.

Gap analysis. The only identified gap in this project was the less than expected participation of nurses from Arnot*Health*. The root cause was a change in nursing leadership with differing priorities or objectives than the original nurse leaders advising this project. This was exacerbated by a lack of resources in the form of a critical nurse staffing and coverage shortage experienced by the organization during the project implementation phase. Corrective actions included opening the workshop to other professional disciplines both within and outside of Arnot*Health* to include other nursing, social work, case management, pastoral care, and behavioral health professionals.

Unanticipated consequences. Three unanticipated situations arose during project implementation. The first involved two participants who experienced emotional distress during workshop sessions. In both instances, participants were accompanied to a private area, provided with immediate support, and referred to an onsite counselor.

A second unanticipated situation involved a participant whose workshop participation was repeatedly interrupted due to work responsibilities. While the participant did his best to complete the workshop, the trainers determined that this participant was not eligible to receive a certificate of completion. This participant opted out of the pretest and post-test questionnaire completion process.

Lastly, the pre and post-test questionnaires for this project were developed with the target population of hospital nurses in mind. As the target population broadened to include other disciplines, applicability of some questionnaire items came into question. In order to insure the most accurate responses, additional verbal instruction was provided to clarify the term "patient" and to encourage use of the "Other (please specify)" write-in response option for items in the profile section of the pretest.

Financial analysis. This project relied exclusively on in-kind contributions from Arnot*Health*, community partners including the Suicide Prevention Center of New York, Suicide Prevention & Crisis Service, Chemung County Office of Mental Hygiene, and this author. Fixed and variable costs for this project are reflected in the 5 Year Budget Plan and Expense Report (see Appendices K & L).

For budget year one of this project (2016), revenues totaled $75, 228 and project resources ($60,570) and physical/material resources ($7,771) were combined for a total project expense of $68,341 with the addition of a ten percent contingency ($6834) for a final expense total of

$75,175 (Appendix L Expense Report).

Actual expenses for project resources were $44,520 for a $16,050 positive variance against budget. In addition, the $6,834 contingency was not utilized. The total actual expenses for Year 1 were $52,291 for a positive variance of $22,884 against budget.

Discussion & Recommendations

Informed decisions and recommendations. Creating excellence in clinical care is an individual, a discipline, and a system responsibility. This project aimed to (1) engage and mobilize stakeholders, (2) conduct an evidence-based training pilot (early adopters), and (3) effect long term system change to advance training efforts and clinical competence in suicide prevention. The expected impact of the project is to prevent suicide sentinel events on inpatient nursing units at the project site hospitals. Each of the aims is considered below in relation to the project and recommendations for system change.

***Engage and mobilize stakeholders*.** Early in the project planning phase, an advisory team was mobilized and engaged in project activities. The advisory team was made up of key internal and external stakeholders representing nursing practice, administration, education, and suicide/mental health experts. The advisory team provided support and leveraged resources that were critical to project implementation and success.

Likewise, the use of clinical supervision and coaching has been shown to enhance suicide-related attitudes and reduce barriers to suicide prevention through educational and emotional support for frontline nurses (Ouzouni & Nakakis, 2013; Talseth & Gilje, 2011; Valente & Saunders, 2004). For Arnot*Health*, modification of the nurse-expert team model currently in use for skin assessment/pressure ulcer prevention to suicide prevention should be considered. Adapting this familiar and accepted model to an interdisciplinary suicide prevention

team approach may be a cost-effective way to enhance collaboration and communication, improve patient and safety outcomes, and promote clinical competence across disciplines.

Evidence-based training pilot. Evaluations consistently support the effectiveness of ASIST as a gatekeeper training program shown to enhance knowledge, change attitudes, and improve intervention skills (Evans & Price, 2013). One aspect of this scholarly project sought to evaluate ASIST on a small scale at Arnot*Health*. Evaluation of this training pilot corresponded with existing published evaluations of ASIST particularly in knowledge and attitude outcomes.

Project participants who attended the ASIST workshops at Arnot*Health* demonstrated statistically significant positive change in both knowledge and attitudes. The project outcome measure for satisfaction was used purposively to evaluate the specific "fit" of ASIST for Arnot*Health* and to inform future recommendations. Satisfaction scores at Arnot*Health* (46.5) exceeded the desired satisfaction threshold (40) and were supported by narrative comments written by participants on post-test. Therefore, ASIST should be considered as an effective evidence-based strategy to continue suicide education efforts for nurses and other professional disciplines at Arnot*Health*.

Long-term system change. It has been well documented that a majority of health care clinicians lack the necessary education and training to competently deal with a clinical situation to prevent suicide (NAASP, 2014). The development of a competent and confident clinical workforce will require long term system change to advance suicide training efforts and build clinical competence. It is important to consider the "trained" employee as a situated agent, both enabled and constrained by broader organizational discourses and practices (Evans & Price, 2013). Organizational influences modulate not only who gets trained but more importantly the diffusion of intervention behaviors. It is recommended that Arnot*Health* adopt an approach of

collective responsibility that includes organization-wide acceptance of a role in suicide prevention and an inclusive multidisciplinary training strategy to maximize efforts and effectiveness. An approach of collective responsibility in suicide prevention is congruent with and supports the mission and organizational values of Arnot*Health*.

Implications for practice. The health care workforce is deficient in suicide-related education and training (NAASP, 2014). Registered nurses consistently report their education did not prepare them adequately to work with patients at risk for suicide, regardless of their level of education (Neville & Roan, 2013). A lack of current knowledge and unfavorable attitudes toward suicide can negatively influence nurses' decision making and behaviors in relation to suicide prevention (Bolster et al., 2015). Unique challenges in suicide prevention exist for nurses working in the non-psychiatric hospital setting in terms of environmental, staff/training, and patient population factors. The evidence supports a need for increased suicide awareness and prevention education for all health care professionals (TJC, 2010).

Consistent with Peplau's interpersonal relations theory, effective suicide education has been shown to improve suicide-related knowledge, self-awareness, and attitudes. The integration of effective suicide education as a standard for new employee orientation with annual review would provide nurses and other disciplines a way to establish and update skills, in much the same way as cardiopulmonary resuscitation review and practice (Bolster et al., 2015).

In an evolving health care environment driven by outcomes, there is increasing emphasis on team-based interprofessional collaboration (IPC) and interprofessional education (IPE) (Sullivan, Kiovsky, Mason, Hill, & Dukes, 2015). Different disciplines that learn together will understand each member's role and develop trust and respect for the different perspective that each profession brings. The serendipitous cross-discipline participation in the ASIST workshops

implemented for this project resulted in a cross-pollination of ideas and perspectives and a rich and interactive learning experience. Team-based suicide simulation exercises should also be considered as a potent opportunity to foster IPC and IPE and should become routine for interprofessional skill development (Bolster et al., 2015)

Policy implications. Policy is defined as the choice a society, an organization, or a group makes regarding its goals and priorities and how it will allocate resources to address those priorities (White, 2012). Increasingly, policymakers in both private and public settings look to evidence as a means to solve problems and inform decisions (Price, 2016). Best practices stemming from the most current scientific evidence in suicide prevention focus on transformation of health care systems to significantly reduce suicide. This includes promoting the adoption of 'zero suicides' as an organizing goal for clinical systems by supporting efforts to transform suicide care through leadership, policies, practices, and outcome measurements (NAASP, 2014). Systems management to this end will require an incremental approach to achieve the greatest magnitude of effect over time. Three major areas to guide the organization of effective service delivery include 1) policies and procedures, 2) collaboration and communication, and 3) a trained and skilled workforce (Covington & Hogan, 2011).

Organizational policies that mandate suicide education for nurses and other health care disciplines communicate collective responsibility for suicide prevention across disciplines. Implementation of a standard suicide education intervention across disciplines imparts a shared knowledge, common language and facilitates an environment of implicit understanding and support between colleagues (Evans & Price, 2013). Staff development is an integral part of a service structure and a major part of a sound risk management program. Current evidence supports an organizational approach to suicide education that includes foundational training for

new employees upon hire augmented with annual updates (Bolster et al., 2015; NAASP, 2014).

There is growing momentum at the state-level to mandate suicide training for various professional disciplines. Evidence suggests that such training is not only needed but valued by professionals as a means to update suicide-related knowledge and skills and to increase professional confidence (American Foundation for Suicide Prevention [AFSP], 2016). Currently six states (KY, NV, NH, PA, UT, WA) mandate suicide training for health professionals. Training requirements in these six states vary widely in the number of required training hours and frequency of training. The required hours of training range from one to six and the required frequency ranges from a one-time requirement to every two to six years. In four states (NV, NH, PA, UT), the suicide training requirement has been established as a condition for renewal of licenses or certifications. However, Washington is the only state that currently mandates suicide training for nurses. In Washington, licensed practical nurses, registered nurses, and advanced practice registered nurses are required to complete a one-time training three to six hours in length (AFSP, 2016). Policy efforts to expand mandated suicide training for health professionals including nurses to more states will be required to affect change in moving the needle toward a more suicide-competent, enabled workforce.

Maintaining and sustaining change. The results of this small-scale pilot of ASIST support a case to advance suicide training efforts at Arnot*Health*. The voluntary participation of non-nursing professionals such as social work, pastoral care, academia, and behavioral health, affirms the larger need for workforce development. The under-representation of nurses participating in the suicide education process speaks to a need for long-term system change. This need corresponds to the third phase of Evolve within the framework of Adopt, Adapt, and Evolve to develop an enabled clinical workforce (NAASP, 2014). Each phase represents a series of

micro-transformations that contribute to a long-term system effect. Specifically, the Evolve phase represents the long-term system changes that will be required to build and sustain suicide training efforts and the competency of clinicians across disciplines at the system level.

Lessons learned. Where do I begin? Valuable lessons were learned in each phase of this scholarly project. Lessons learned in the planning phase included:

- Never underestimate the willingness and resources that external stakeholders can contribute to internal efforts.
- Buy-in and support from organizational leadership may help to mitigate leadership and priority changes at the level of nursing administration.

Lessons learned in the implementation phase included:

- Planning and preparation are key to maintaining sanity and achieving the greatest measure of success.

Lessons learned in the evaluation phase included:

- A solid evaluation plan is critical.
- Identify and secure statistical support early.

Dissemination

For this scholarly project written dissemination will be accomplished through several channels including but not limited to an executive summary, poster, PowerPoint presentation, and professional publication. Oral dissemination of project results to stakeholders and professional audiences provides an opportunity for the author to give voice to the project and requires different skills and preparation from written dissemination. Oral dissemination options can include poster sessions, oral presentations, or lectures for professional meetings at the local, state, or national level, and presentations to population-based groups (Issel, 2014).

The following oral presentations will be pursued for presentation of this project (a) Boise State University, DNP Final Executive Session; (b) Sigma Theta Tau International, Rho Gamma Chapter, Sharing Innovations in Nursing Research; (c) Eastern Nursing Research Society, Annual Scientific Session; (d) Professional Nurses of the Twin Tiers; and (e) New York State Suicide Prevention Conference.

Venues for electronic dissemination have grown exponentially in the age of the internet including various forms formal and informal networking sites. Options for electronic dissemination of this project are ongoing.

Conclusion

With the persistence of suicide as a leading cause of death, a high ranking sentinel event, and a national patient safety goal, having a competent clinical workforce is critical to prevention. Accomplishing this goal will require efforts on multiple levels. Health care systems must be willing to commit the necessary resources to support organization-wide policies and procedures to mandate cross-discipline suicide prevention training. Mandatory continuing education as a condition of license and certification renewal can serve as an essential catalyst for individuals, disciplines, and health care systems.

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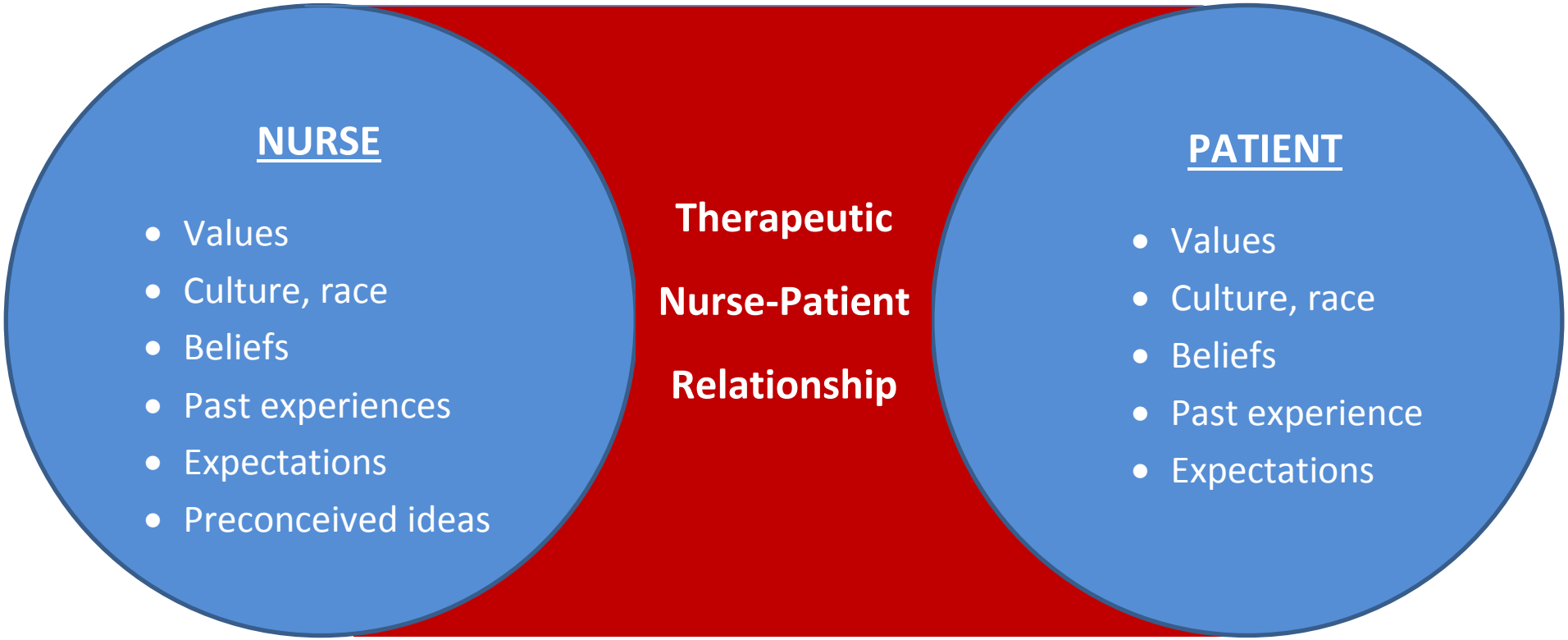
Appendices

Appendix A

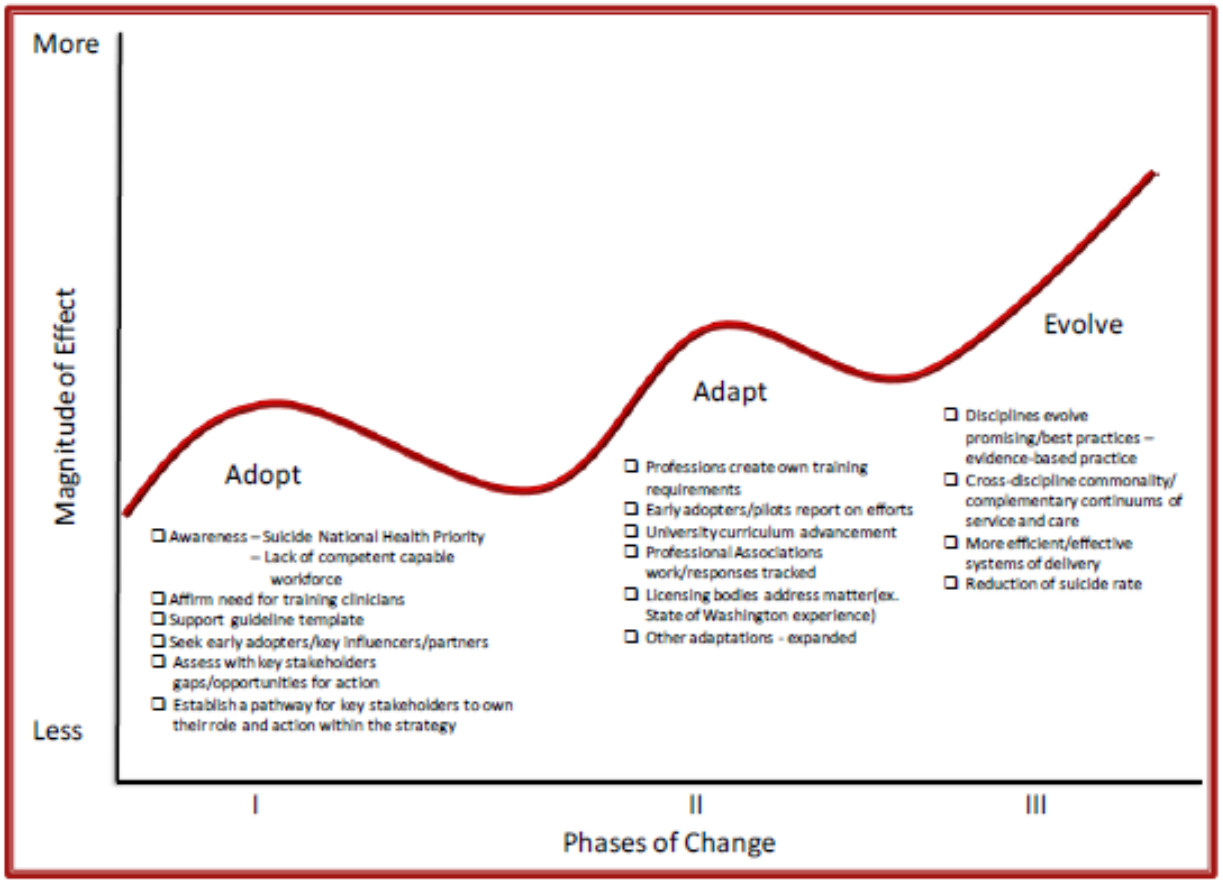
Theoretical Model: Therapeutic Nurse-Patient Relationship



(Patidar, n.d.)

Appendix B

System Change Framework



(NAASP, 2014)

Appendix C

Pretest Questionnaire

BOISE STATE UNIVERSITY

INFORMED CONSENT TO PARTICIPATE IN A SCHOLARLY PROJECT

Project Title: Suicide Prevention in the Non-Psychiatric Hospital Setting: A Nurse Education Process
Principle Investigator: Terry Bird, MSN, RN-BC
Faculty Advisor: Kim Martz, PhD, RN

Dear Participant,

Terry Bird, a doctor of nursing practice student at Boise State University, is conducting a scholarly project to (a) plan, implement, and evaluate an evidence-based suicide education program for nurses working at Arnot*Health*; (b) build organizational capacity to institutionalize evidence-based suicide education; and (c) empower nurses to implement nursing policies and practices based on the most current suicide prevention science and evidence.

You are being asked to complete a pretest and post-test questionnaire before and after completion of a two-day Applied Suicide Intervention Skills Training (ASIST) workshop. The questionnaires include questions about your demographic characteristics, professional and personal experience with suicide, past suicide education and training, suicide-related knowledge and beliefs, and level of satisfaction with the ASIST workshop.

Completion of the pretest and post-test questionnaires is voluntary and confidential. There is no penalty if you choose not to complete the questionnaires. Each questionnaire will take approximately 15 minutes or less to complete. We ask that you try to answer all items on the questionnaires; however, if there are any items that make you uncomfortable or that you would prefer to skip, please leave the answer blank.

To protect the privacy of participants, pre and post-test questionnaires will be completed anonymously with no identifying information. As a means to compare the pre and post-test responses, you will be instructed to create a unique code that will be used to match your pretest and post-test questionnaires.

For experienced professional nurses, participation in the ASIST workshop and completion of the pretest and post-test questionnaires will pose minimal risk. However, due to the sensitive and possible personal nature of the topic, measures to identify, mitigate, and manage participant distress have been planned. Participants who report emotional distress or demonstrate visible signs of emotional distress in relation to the topic of suicide will be excused from the session, accompanied to a private area and provided immediate support by Mrs. Bird. With consent of the participant, a support person from the Arnot*Health* Behavioral Health Assessment Team may be

contacted for continued support as needed. Any participant experiencing emotional distress will also be encouraged to follow-up with a health care provider or mental health professional.

- **If you would prefer not to participate, please do not complete the questionnaires.**
- **If you consent to participate, please complete the questionnaires as instructed.**

This project has been approved by the Institutional Review Board (IRB) at Boise State University. *ArnotHealth* has accepted Boise State University's IRB approval of the project.

If you have questions about your rights as a participant in this project, you may contact the Boise State University Institutional Review Board (IRB), which is concerned with the protection of participants in scholarly projects. You may reach the board office between 0800 and 1700 MST, Monday through Friday, by calling (208) 426-5401 or by writing: Institutional Review Board, Office of Research Compliance, Boise State University, 1910 University Dr., Boise, ID 83725-1138. Questions or concerns may also be directed to Terry Bird or her faculty advisor:

Terry Bird, MSN, RN-BC
ArnotHealth
(570) 329-6205
tbird@ah.arnothealth.org

Dr. Kim Martz, Assistant Professor
Boise State University
(208) 426-9999
kimmartz@boisestate.edu

By completing the pretest and post-test questionnaires, you are indicating that you at least 18 years old, have read this document, have had any questions answered, and voluntarily agree to take part in this project. You may keep this form for your records.

Thank you,

Terry Bird

A NURSE EDUCATION PROCESS ON SUICIDE PREVENTION IN THE NON-PSYCHIATRIC HOSPITAL SETTING

Applied Suicide Intervention Skills Training Program (ASIST)
Pretest Questionnaire

This scholarly project is interested in collecting information from nurses on suicide-related knowledge and beliefs before and after completing the two-day Applied Suicide Intervention Skills Training (ASIST) workshop. The intent of this pretest questionnaire is also to collect data related to demographic characteristics, professional and personal experience with suicide, and past suicide education and training. Due to the small number of workshop participants, the combined answers to these questions may make an individual person identifiable. Every effort will be made to protect your confidentiality. However, if you are uncomfortable answering any of the questions, you may leave the questions blank. Thank you for your participation and cooperation!

CODE NUMBER: (The code number is used to match pretest and posttest surveys and assures the confidentiality of participants).

What are the two digits of the **month** of your birth date? _____ _____

What are the two digits of the **day** of your birth date? _____ _____

What are the **first two letters** of your mother's maiden name? _____ _____

Today's date: _____/_____/_____

SECTION 1: Respondent Profile
This section contains items on your personal and professional characteristics. Please read each item and check the box that represents you best.

1. Your age is:

   [ ] 18 to 25 years
   [ ] 26 to 33 years
   [ ] 34 to 41 years
   [ ] 42 to 49 years
   [ ] 50 to 57 years
   [ ] 58 to 65 years
   [ ] 66 to 72 years
   [ ] Over 72 years

2. Gender: [ ] Male [ ] Female [ ] Other

3. Primary work place:

   [ ] Arnot Ogden Medical Center
   [ ] St. Joseph's Hospital
   [ ] Ira Davenport Hospital
   [ ] Other (please specify) _____

4. Current position:

   [ ] Unit-based staff nurse
   [ ] Unit-director/manager
   [ ] Supervisor
   [ ] Coordinator
   [ ] Nurse Educator
   [ ] Case Manager
   [ ] Social Worker
   [ ] Other (please specify) _____

[Please continue on next page.]

5. Primary work area:

[ ] Medical-surgical
[ ] Critical care
[ ] Emergency services
[ ] Obstetrics
[ ] Pediatrics
[ ] Operating room
[ ] Behavioral Health
[ ] Rehabilitation
[ ] Long-term care
[ ] Other (please specify) _____

6. Length of time in current position in this organization:

_____ years _____ months

7. Race/ethnic identity (select all that apply):

[ ] American Indian/Alaska Native
[ ] Asian or Pacific Islander
[ ] Black, not of Hispanic Origin
[ ] Hispanic
[ ] White, not of Hispanic Origin
[ ] Other (please specify) _____

8. Level of education:

[ ] High school
[ ] Associate degree
[ ] Diploma
[ ] Bachelor's degree
[ ] Master's degree
[ ] Doctoral degree
[ ] Other_____

9. Specialty certification: [ ] yes [ ] no
Specify specialty certification: _____

10. Years of experience in profession: _____ years

[Please continue to Section 2.]

SECTION 2: Professional and personal experience with suicide
This section contains questions about your professional and personal experience with suicide. Please read each question and check the box that represents you best.

1. Have you ever cared for a patient who attempted suicide?

   [ ] Yes

   [ ] No

   [ ] Do not know

   [ ] Other (Please describe) _____

2. Have you ever cared for a patient who died by suicide?

   [ ] Yes

   [ ] No

   [ ] Do not know

   [ ] Other (Please describe) _____

3. Have you had a family member or friend who attempted suicide?

   [ ] Yes

   [ ] No

   [ ] Do not know

   [ ] Other (Please describe) _____

4. Have you had a family member or friend who died by suicide?

   [ ] Yes

   [ ] No

   [ ] Do not know

   [ ] Other (Please describe) _____

[Please continue on next page.]

5. Have you personally ever considered suicide?

   [ ] Yes

   [ ] No

   [ ] Do not know

   [ ] Other (Please describe) _____

SECTION 3: Suicide education and training background
This section contains questions about your <u>suicide education and training background.</u> Please read each item and check the box that represents you best.

1. Have you received any suicide prevention education or training in the past?

   [ ] Yes [ ] No

If you marked "Yes" to question 1 above, please answer the next four questions. If you marked "No", please move on to SECTION 4.

2. In what context did you receive past suicide prevention education or training? (select all that apply)

   [ ] Nursing school

   [ ] College

   [ ] New employee orientation

   [ ] Employer initiated professional development

   [ ] Self-initiated professional or personal develop

   [ ] Other (please describe) _____

3. Estimate the number of hours of your previous suicide prevention education or training.

   _____ hours

[Please continue on next page.]

4. Approximately how long ago was the last suicide prevention education or training you attended?

   [ ] Within the past 6 months

   [ ] Within the past year

   [ ] Within the past 2-5 years

   [ ] More than 5 years ago

   [ ] Cannot recall

5. In which of the following topics have you received training? (select all that apply)

   [ ] Suicide warning signs/risks [ ] Suicide intervention skills

   [ ] Suicide protective factors [ ] Suicide statistics

   [ ] Suicide risk assessment [ ] Suicide gatekeeper training

   [ ] Other_____

SECTION 4: Suicide Knowledge

This section contains a list of true/false and multiple choice questions intended to assess your <u>knowledge</u> about suicide and suicide prevention. Please select the best response by circling the appropriate letter for each question. Please circle only ONE response. If uncertain, feel free to guess.

1. Key caregiver tasks in the first phase of the Pathway for Life Assisting (PAL) model include:

   a. engaging and identifying.

   b. asking and assessing.

   c. exploring and asking.

   d. listening and contracting.

[Please continue on next page.]

2. Asking a distressed person if he or she is having thoughts of death or suicide:
    a. should never be done, as it may put the idea of suicide in the person's mind.
    b. should only be done by professionally trained persons.
    c. should be a critical first step in helping a person at risk for suicide.
    d. should have no effect on the risk for suicide.
3. Which of the following provides the most important information in assessing the risk of suicide?
    a. Symptoms
    b. Stress
    c. Resources
    d. Physical health
4. If you were concerned that an individual might be thinking of suicide, which of the following questions should be avoided?
    a. You're not thinking of killing yourself, are you?
    b. Are you thinking about suicide?
    c. Are you feeling so bad you'd like to go to sleep and never wake up?
    d. Have you ever wished you were dead?
5. People serious about suicide cannot be helped.
    a. True
    b. False

[Please continue on next page.]

6. Which of the following phases comprise the Pathway for Life Assisting (PAL) model?
    a. Recognizing, diagnosing, treating
    b. Prevention, intervention, postvention
    c. Primary, secondary, tertiary
    d. Connecting, understanding, assisting

7. If someone admits to feeling suicidal, a caregiver should next:
    a. calmly inquire about what is happening in their life.
    b. listen to their reasons for dying.
    c. inform significant others.
    d. arrange for immediate referral.

8. People at risk for suicide should be encouraged to talk about their wish to die.
    a. True
    b. False

9. The most important component in reviewing a person's current suicide plan is:
    a. stated seriousness.
    b. age.
    c. degree of preparation.
    d. apparent distress.

[Please continue on next page.]

10. Which of the following is NOT a core task of a caregiver trained in the Pathway for Life Assisting (PAL) model?
    a. Asking about suicide
    b. Following-up on commitments
    c. Providing psychological counseling
    d. Listening to reasons for dying and living
11. How would you rate your suicide-related knowledge?
    a. Excellent
    b. Good
    c. Fair
    d. Poor
12. How would you rate your suicide assessment skills?
    a. Excellent
    b. Good
    c. Fair
    d. Poor

[Please continue to Section 5.]

SECTION 5: Beliefs About Suicide

This section contains a list of statements of what you may think or believe about suicide. Please read each statement and use the rating scale to indicate the degree to which you agree or disagree with it. Circle your response. <u>There are no right or wrong answers.</u> It is important that you answer each statement according to your beliefs and not what you think others may want you to believe.

Please circle the letter choice that best describes your response to each statement.	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1. I prefer not to get involved with those who have attempted suicide.	SD	D	N	A	SA
2. I feel ineffective with a person that wants to end his or her own life.	SD	D	N	A	SA
3. I sometimes resent individuals who want to die because so many people struggle so hard to live.	SD	D	N	A	SA
4. I am afraid of asking questions about the idea of suicide for fear of inducing it.	SD	D	N	A	SA
5. In the case of individuals who are suffering a lot due to disease, I think that the ideas of suicide is more acceptable.	SD	D	N	A	SA
6. Working with suicidal people is rewarding.	SD	D	N	A	SA
7. If people are serious about suicide, they don't tell anyone.	SD	D	N	A	SA
8. I feel defensive when people offer advice about suicide prevention.	SD	D	N	A	SA
9. I feel capable of recognizing when an individual is at risk of suicide.	SD	D	N	A	SA
10. I have the professional skills to manage individuals at risk for suicide. **[Please continue on next page.]**	SD	D	N	A	SA

11. I feel insecure when caring for patients at risk for suicide.	SD	D	N	A	SA
12. I don't feel comfortable assessing someone for suicide risk.	SD	D	N	A	SA
13. It is easy for people not involved in clinical practice to make judgments about suicide prevention.	SD	D	N	A	SA
14. If a person survives a suicide attempt then it was a ploy for attention.	SD	D	N	A	SA
15. People have the right to take their own lives.	SD	D	N	A	SA
16. As unemployment and poverty are the main causes of suicide, there is little that an individual can do to prevent it.	SD	D	N	A	SA
17. When encountering a suicidal individual, I think if someone had talked to the person, he or she would have found another way to cope.	SD	D	N	A	SA
18. Suicide prevention measures are a draw on resources, which would be more useful elsewhere.	SD	D	N	A	SA
19. There is no way of knowing who is going to attempt suicide.	SD	D	N	A	SA
20. The person who has God in his or her life will not attempt suicide.	SD	D	N	A	SA

Thank you for completing this questionnaire.

The suicide questions and statements are adapted with permissions from the Attitudes Towards Attempted Suicide Questionnaire (ATAS-Q) developed by Ouzouni and Nakakis (2009) and the Colorado State Project Safety Net, ASIST Training Workshop Survey developed by Chen, Moore, & Gibbs (2009).

Chen, P. Y., Moore, J. T., & Gibbs, J. (2009). *Project safety net: Colorado State University final report.* Retrieved from http://www.chd.dphe.state.co.us/Resources/cms/pp/suicide/2009.12.07.CSU_PSN_Final_Report_09_29.pdf

Ouzouni, C., & Nakakis, K. (2009). Attitudes towards attempted suicide: The development of a measurement tool. *Health Science Journal, 3*(4), 222-231.

A NURSE EDUCATION PROCESS ON SUICIDE PREVENTION IN THE NON-PSYCHIATRIC HOSPITAL SETTING

Applied Suicide Intervention Skills Training Program (ASIST)

Post-test Questionnaire

This scholarly project is interested in collecting information from nurses on suicide-related knowledge and beliefs before and after completing the two-day Applied Suicide Intervention Skills Training (ASIST) workshop. The intent of this post-test questionnaire is also to collect information to evaluate the level of satisfaction with the workshop and suitability of ASIST for other nurses in the organization. Your participation is voluntary and all of your responses will be kept confidential. If you are uncomfortable answering any of the questions, you may leave the questions blank. Thank you for your participation and cooperation!

CODE NUMBER: (The code number is used to match pretest and posttest surveys and assures the confidentiality of participants).

What are the two digits of the **month** of your birth date? _____ _____

What are the two digits of the **day** of your birth date? _____ _____

What are the **first two letters** of your mother's maiden name? _____ _____

Today's date: _____/_____/_____

SECTION 1: Suicide Knowledge

This section contains a list of true/false and multiple choice questions intended to assess your knowledge about suicide and suicide prevention. Please select the best response by circling the appropriate letter for each question. Please circle only ONE response. If uncertain, feel free to guess.

1. Key caregiver tasks in the first phase of the Pathway for Life Assisting (PAL) Model include:
    a. engaging and identifying.
    b. asking and assessing.
    c. exploring and asking.
    d. listening and contracting.

2. Asking a distressed person if he or she is having thoughts of death or suicide:
    a. should never be done, as it may put the idea of suicide in the person's mind.
    b. should only be done by professionally trained persons.
    c. should be a critical first step in helping a person at risk for suicide.
    d. should have no effect on the risk for suicide.

3. Which of the following provides the most important information in assessing the risk of suicide?
    a. Symptoms
    b. Stress
    c. Resources
    d. Physical health

[Please continue on next page.]

4. If you were concerned that an individual might be thinking of suicide, which of the following questions should be avoided?
    a. You're not thinking of killing yourself, are you?
    b. Are you thinking about suicide?
    c. Are you feeling so bad you'd like to go to sleep and never wake up?
    d. Have you ever wished you were dead?

5. People serious about suicide cannot be helped.

    a. True b. False

6. Which of the following phases comprise the Pathway for Life Assisting (PAL) Model?
    a. Recognizing, diagnosing, treating
    b. Prevention, intervention, postvention
    c. Primary, secondary, tertiary
    d. Connecting, understanding, assisting

7. If someone admits to feeling suicidal, a caregiver should next:
    a. calmly inquire about what is happening in their life.
    b. listen to their reasons for dying.
    c. inform significant others.
    d. arrange for immediate referral.

8. People at risk for suicide should be encouraged to talk about their wish to die.
    a. True b. False

[Please continue on next page.]

9. The most important component in reviewing a person's current suicide plan is:
    a. stated seriousness.
    b. age.
    c. degree of preparation.
    d. apparent distress.

10. Which of the following is NOT a core task of a caregiver trained in the Pathway for Life Assisting (PAL) Model?
    a. Asking about suicide
    b. Following-up on commitments
    c. Providing psychological counseling
    d. Listening to reasons for dying and living

11. How would you rate your suicide-related knowledge?
    a. Excellent
    b. Good
    c. Fair
    d. Poor

12. How would you rate your suicide assessment skills?
    a. Excellent
    b. Good
    c. Fair
    d. Poor

[Please continue to Section 2.]

SECTION 2: Beliefs about Suicide

This section contains a list of statements of what you may think or believe about suicide. Please read each statement and use the rating scale to indicate the degree to which you agree or disagree with it. Circle your responses. <u>There are no right or wrong answers.</u> It is important that you answer all statements according to your beliefs and not what you think others may want you to believe.

Please circle the letter choice that best describes your response to each statement.	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1. I prefer not to get involved with those who have attempted suicide.	SD	D	N	A	SA
2. I feel ineffective with a person that wants to end his or her own life.	SD	D	N	A	SA
3. I sometimes resent individuals who want to die because so many people struggle so hard to live.	SD	D	N	A	SA
4. I am afraid of asking questions about the idea of suicide for fear of inducing it.	SD	D	N	A	SA
5. In the case of individuals who are suffering a lot due to disease, I think that the ideas of suicide is more acceptable.	SD	D	N	A	SA
6. Working with suicidal people is rewarding.	SD	D	N	A	SA
7. If people are serious about suicide, they don't tell anyone.	SD	D	N	A	SA
8. I feel defensive when people offer advice about suicide prevention.	SD	D	N	A	SA
9. I feel capable of recognizing when an individual is at risk of suicide.	SD	D	N	A	SA
10. I have the professional skills to manage individuals at risk for suicide. **[Please continue on next page.]**	SD	D	N	A	SA

11. I feel insecure when caring for patients at risk for suicide.	SD	D	N	A	SA
12. I don't feel comfortable assessing someone for suicide risk.	SD	D	N	A	SA
13. It is easy for people not involved in clinical practice to make judgments about suicide prevention.	SD	D	N	A	SA
14. If a person survives a suicide attempt then it was a ploy for attention.	SD	D	N	A	SA
15. People have the right to take their own lives.	SD	D	N	A	SA
16. As unemployment and poverty are the main causes of suicide, there is little that an individual can do to prevent it.	SD	D	N	A	SA
17. When encountering a suicidal individual, I think if someone had talked to the person, he or she would have found another way to cope.	SD	D	N	A	SA
18. Suicide prevention measures are a draw on resources, which would be more useful elsewhere.	SD	D	N	A	SA
19. There is no way of knowing who is going to attempt suicide.	SD	D	N	A	SA
20. The person who has God in his or her life will not attempt suicide.	SD	D	N	A	SA

[Please continue to Section 3]

SECTION 3: Satisfaction with ASIST

This section contains a list of statements intended to assess your level of satisfaction with the Applied Suicide Intervention Training (ASIST) you just completed. Please read each statement and use the rating scale to indicate the degree to which you agree or disagree with it. Circle your responses.

Please circle the letter(s) that best describe(s) your response.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. The training increased my knowledge.	SD	D	N	A	SA
2. The training met my needs.	SD	D	N	A	SA
3. The training was applicable to my work and/or daily life.	SD	D	N	A	SA
4. As a result of this training, I am better prepared to help with suicide prevention.	SD	D	N	A	SA
5. As a result of this training, I am better prepared to support others to identify suicide warning signs.	SD	D	N	A	SA
6. As a result of this training, I am better prepared to support others to intervene with a person at risk for suicide.	SD	D	N	A	SA
7. I will use what I learned from this training in my job.	SD	D	N	A	SA
8. I would rate ASIST as appropriate for the skill level of professionals like me in the organization.	SD	D	N	A	SA
9. I would recommend ASIST for other professionals like me in the organization.	SD	D	N	A	SA
10. More education in suicide prevention is needed for health care professionals in the organization.	SD	D	N	A	SA

[Please continue on next page.]

Please provide additional comments or feedback:

Thank you for completing this questionnaire.

[Please continue to Debriefing Section.]

Debriefing Statement

Project Title: Suicide Prevention in the Non-Psychiatric Hospital Setting: A Nurse Education Process
Principle Investigator: Terry Bird, MSN, RN-BC
Faculty Advisor: Kim Martz, PhD, RN

Thank you for agreeing to participate in this scholarly project! The general purpose of this project is to plan, implement, and evaluate an evidence-based suicide prevention education intervention for health care professionals working in a non-psychiatric hospital setting.

We invited registered nurses working on non-psychiatric hospital units at Arnot*Health* including unit-based nurses, nurse educators, nurse supervisors and coordinators, and unit directors to participate. For this project, you were asked to complete a pretest and post-test questionnaire before and after completion of a two-day Applied Suicide Intervention Skills Training (ASIST) workshop. The results of this project will be used to inform decisions about the future use of ASIST for nurses and other health care professionals at Arnot*Health*.

If your participation in this project brings up any unpleasant memories or you experience undue emotional distress please feel free to contact Terry Bird for assistance. Alternatively, you could also contact Health On Demand (800) 952-2662, Arnot*Health* Employee Assistance Program (800) 327-2255, or St. Joseph's Hospital Emergency Care Center (607) 737-7806. You may keep this form for your records.

Thank you for your participation in this scholarly project. If you have any questions about the project, please contact Terry Bird or Dr. Kim Martz. In addition, if you have any concerns about any aspect of the project, you may contact the Institutional Review Board, Office of Research Compliance, Boise State University, 1910 University Dr., Boise, ID 83725-1138. Telephone: (208) 426-5401.

Terry Bird, MSN, RN-BC
ArnotHealth
(607) 795-8075
tbird@ah.arnothealth.org

Dr. Kim Martz, Assistant Professor
Boise State University
(208) 426-9999
kimmartz@boisestate.edu

Additional Reading:

Bolster, C., Holliday, C., O'Neal, G., & Shaw, M. (2015). Suicide assessment and nurses: What does the evidence show? *Online Journal of Issues in Nursing, 20*(1), 1-13. doi: http://doi.org/10.3912/OJIN.Vol20No01Man02

National Action Alliance for Suicide Prevention: Clinical Workforce Preparedness Task Force. (2014). Suicide prevention and the clinical workforce: Guidelines for training. Retrieved from http://actionallianceforsuicideprevention.org/sites/actionallianceforsuicideprevention.org/files/Guidelines.pdf

Appendix D
Scholarly Project Outcome Evaluation Table

Outcome Measure	Outcome Instrument Data	Analysis Goal	Analytic Technique	Outcome Analysis
By close of project implementation phase, 75% of attending participants will complete both days of the ASIST workshop as measured by sign-in/sign-out each day and evidenced by attendance tracking logs.	(4) Self-created signature-attendance logs designed to track sign-in and sign-out for each attending participant on each workshop day.	Describe & summarize participant completion rates for the 2-day ASIST workshop	Descriptive statistics: • Counts, percentages	Outcome achieved • 100% of attending participants completed both days of the ASIST workshop (30/30)
By close of project evaluation phase, describe & summarize participant characteristics including age range, gender, primary work site, current position, primary work area, length of time in current position, race/ethnicity, level of education, specialty certification, years of experience as RN, previous suicide prevention training, professional and personal experience with suicide.	Project-specific pretest questionnaire: Respondent Profile (10-items), Professional and Personal Experience with Suicide (5-items), and Suicide Education & Training Background (5-items) sections of self-created pretest questionnaire.	Describe & summarize participant characteristics as described.	Descriptive statistics: • Counts, percentages, central tendency, distribution, dispersion	Outcome achieved (See Appendix H, I, & J)
Total post-testing scores for knowledge increase by 10% in comparison to matched pretest scores as measured by true/false & multiple choice questions on pretest	Self-created matched pretest and posttest questionnaires with 12 true/false & multiple choice knowledge items.	Compare suicide-related knowledge before and after education intervention.	Descriptive statistics • Counts, percentages, central tendency, distribution, dispersion Paired t-Test	Outcome achieved • 13.1% increase in mean post test score for knowledge

and post-test questionnaires completed before and after attending 2-day ASIST workshop.				
Post-test scores for attitude will increase by 10% in comparison to matched pretest scores measured on a 5-point scale with scores < 3 indicating less favorable and scores > 3 indicating more favorable as measured by pretest and post-test questionnaires administered before and after attending 2-day ASIST workshop.	Self-created matched pretest and posttest questionnaires with 20-item section on Attitudes and Beliefs About Suicide using 5 point Likert-type scale ranging from strongly disagree, disagree, neutral, agree, and strongly agree.	Compare suicide-related attitudes before and after education intervention.	Descriptive statistics • Counts, percentages, central tendency, distribution, dispersion Paired t-Test	Outcome achieved • 11% increase in mean post test score for attitude
After attending the 2-day ASIST workshop, 80% of participants will report a total satisfaction score of 40 points or more on a 5-point scale from strongly disagree (1) to strongly agree (5) as measured by post-test questionnaire completed on completion of the 2-day ASIST workshop.	Ten-item section on Satisfaction with Assist Workshop using self-created Likert-type scale of strongly disagree, disagree, neutral, agree, and strongly agree integrated into posttest questionnaire.	Describe & summarize nurse participant level of satisfaction with ASIST workshop and curriculum.	Descriptive statistics: • Counts, percentages, central tendency, distribution, dispersion	Outcome achieved • Total mean satisfaction score: 46.5
Within 12 months of project completion, a revised education policy mandating suicide prevention education for nurses upon hire and	Arnot*Health* education policy mandating initial and annual suicide prevention education for nurses.	Policy revised and mandated suicide prevention education for nurses implemented.	Descriptive statistics	Outcome partially achieved • Completion anticipated by September 30, 2017

annually will be implemented by the Arnot*Health* Department of Education.				

Appendix E

SWOT Analysis

	Strengths	Weaknesses
INTERNAL	- Significant buy-in from nurse executives - Project will address identified gaps in suicide education - Attributes of project leader - Few doctorally prepared nurses in the organization	- Few financial resources available - Availability of target population to participate (staffing) - Target population may not recognize the need or value the planned intervention - Few doctorally prepared nurses in the organization
	Opportunities	**Threats**
EXTERNAL	- Cultivation of external collaborative relationships - Contribution to the current knowledge on the topic through dissemination of scholarly project	- Prohibitive or unanticipated costs to implement evidence-based education intervention - Availability of trainers for selected evidence-based suicide curriculum

Appendix F

SB-IRB Notification of Approval

BOISE STATE UNIVERSITY
RESEARCH AND ECONOMIC DEVELOPMENT

Date: April 05, 2016

To: Terry Bird cc: Kim Martz

From: Social & Behavioral Insitutional Review Board (SB-IRB)
c/o Office of Research Compliance (ORC)

Subject: SB-IRB Notification of Approval - Original - 187-SB16-049
Suicide Prevention in the Non-Psychiatric Hospital Setting: A Nurse Education Process

The Boise State University IRB has approved your protocol submission. Your protocol is in compliance with this institution's Federal Wide Assurance (#0000097) and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46).

Protocol Number:	**187-SB16-049**	Received:	2/24/2016	Review:	Expedited
Expires:	**4/4/2017**	Approved:	4/5/2016	Category:	7

Your approved protocol is effective until 4/4/2017. To remain open, your protocol must be renewed on an annual basis and cannot be renewed beyond 4/4/2019. For the activities to continue beyond 4/4/2019, a new protocol application must be submitted.

ORC will notify you of the protocol's upcoming expiration roughly 30 days prior to 4/4/2017. You, as

Appendix G

Site Authorization/Cooperation Acknowledgement

Arnot Health
600 Roe Ave.
Elmira, NY 14905

January 2016

Please note that Terry Bird, Boise State University doctor of nursing practice student, has the permission of Arnot Health to conduct the scholarly project titled "Suicide Prevention in the Non-Psychiatric Hospital Setting: A Nurse Education Process" at Arnot Health.

The purpose of this project is to facilitate the implementation of an evidence-based suicide prevention education intervention for nurses working at Arnot Health. The target population includes unit directors, clinical supervisors and coordinators, nurse educators, and representative unit-based nurses. Mrs. Bird will recruit participants through organizational email and individual and group presentations.

Applied Suicide Intervention Skills Training (ASIST), a two-day intensive, interactive, and practice-dominated course, will be offered on consecutive days in both June and July 2016. It is anticipated that the Applied Suicide Intervention Skills Training (ASIST) education intervention will positively influence participants suicide-related awareness, knowledge, and attitudes. The education intervention will also enhance participants' role development in aspects of staff supervision, support, and coaching of other nurses in relation to suicide prevention.

Project data will be derived from pretest and post-test questionnaires completed by participants before and upon completion of the suicide education intervention. Upon completion of the scholarly project, findings will be disseminated through written and oral presentation to participants and other stakeholders and publication. This project is subject to approval by the Institutional Review Board (IRB) at Boise State University including but not limited to provisions for informed consent, protection of privacy, and confidentiality.

If there are any questions, please contact Terry Bird, MSN, RN-BC at tbird@aomc.org or (570) 329-6205.

Signed,

Mary Vosburg, Vice-President & Chief Nursing Officer
Arnot Ogden Medical Center & St. Joseph's Hospital

Appendix H

Participant Characteristics

DEMOGRAPHIC CHARACTERISTICS (N = 29)	
Variable	**n (%)**
Gender	
Female	18 (75)
Male	6 (25)
Other	0
Missing data	5
Age	
18 to 25	1 (3.4)
26 to 33	3 (10.3)
34 to 41	3 (10.3)
42 to 49	4 (13.8)
50 to 57	12 (41.4)
58 to 65	2 (6.9)
66 to 72	2 (6.9)
Over 72	2 (6.9)
Race	
White, not of Hispanic origin	26 (92.9)
Asian or Pacific Islander	1 (3.6)
Other	1 (3.6)
Missing data	1
Primary Work Place	
Arnot Ogden Medical Center	16 (55.2)
St. Joseph's Hospital	4 (13.8)
Ira Davenport Hospital	1 (3.4)
Other	8 (27.6)
Current Position	
Social worker	8 (27.6)
Nurse	8 (27.6)
Nurse educator	7 (24.1)
Chaplain	5 (17.2)
Behavioral health	1 (3.4)
Level of Education	
Associate degree	3 (10.3)
Professional diploma	1 (3.4)
Bachelor's degree	4 (13.8)
Master's degree	18 (62.1)
Doctorate	1 (3.4)
Other	4 (13.8)

Appendix I

Participant Previous Suicide Training

Previous Suicide Education/Training (N = 29)	
Variable	**n (%)**
Any Previous Suicide Education/Training	
Yes	21 (72.4)
No	8 (27.6)
Context of Previous Suicide Education/Training	
Employer initiated	11 (52.4)
Self-initiated	7 (33.3)
College	6 (28.6)
Nursing school	5 (23.8)
Other	5 (23.8)
New employee orientation	3 (14.3)
Missing data	8
Previous Suicide Education/Training Content	
Warning signs/risk factors	19 (90.5)
Suicide intervention skills	17 (81.0)
Suicide assessment	12 (57.1)
Protective factors	11 (52.4)
Suicide statistics	10 (47.6)
Suicide gatekeeper training	5 (23.8)
Missing data	8
Time Since Last Suicide Education/Training	
Within past 6 months	3 (14.3)
Within past year	3 (14.3)
Within past 2-5 years	7 (33.3)
More than 5 years ago	7 (33.3)
Cannot recall	1 (4.8)
Missing data	8

Appendix J

Participant Experience with Suicide

Professional/Personal Experience With Suicide (N = 29)	
Variable	**n (%)**
Cared for Individual Who Attempted Suicide	
Yes	23 (79.3)
No	5 (17.2)
Do not know	1 (3.4)
Cared for Individual Who Died by Suicide	
No	14 (50.0)
Yes	8 (28.6)
Do not know	6 (21.4)
Missing data	1
Family or Friend Who Attempted Suicide	
Yes	19 (67.9)
No	9 (32.1)
Missing data	1
Family or Friend Who Died by Suicide	
Yes	16 (55.2)
No	12 (41.4)
Do not know	1 (3.4)
Personally Considered Suicide	
No	16 (55.2)
Yes	10 (34.5)
Do not know	1 (3.4)
Other	2 (6.9)

Appendix K

5-Year Budget Plan

Revenues	Budget Year 1 2016	Budget Year 2 2017	Budget Year 3 2018	Budget Year 4 2019	Budget Year 5 2020	Rationale
Arnot*Health* – Facility training budget	$7,771	$7,671	$7,671	$7,671	$7,671	Arnot*Health* 5 yr. budget
Arnot*Health* – Employee salary training budget	$55,920	$33,187	$34,182	$35,208	$36,264	Arnot*Health* 5 yr. budget
Community Org - In-kind contribution	$1,050	0	0	0	0	Year 1 donation
BSU Faculty – In-kind contribution	$3,600	0	0	0	0	Year 1 donation
Contingency	$6,839	0	0	0	0	Year 1 donation
Total	***$75,228***	***$40,858***	***$41,853***	***$42,879***	***$43,935***	
Expenses – Project Resources						
Project Director	$11,700	0	0	0	0	One-time cost
Advisory Team – six (6) members	$12,000	0	0	0	0	One-time cost
Class Participants – fifty (50)	$26,000	$26,780	$27,583	$28,411	$29,263	Annual COL increase (3%)
Internal Stakeholders – five (5)	$500	$515	$530	$546	$563	Annual COL increase (3%)
Admin Assistant	$120	$124	$127	$131	$135	Annual COL increase (3%)
Trainers – four (4)	$5,600	$5,768	$5,941	$6,119	$6,303	Annual COL increase (3%)
Research Analyst – one (1)	$450	0	0	0	0	One-time cost
Community Organization personnel – three (3)	$600	0	0	0	0	One-time cost
BSU Faculty – six (6)	$3,600	0	0	0	0	One-time cost
Total	***$60,570***	***$33,187***	***$34,182***	***$35,208***	***$36,264***	
Expenses – Physical/Material Resources						
Meeting Rooms	$1,500	$1,500	$1,500	$1,500	$1,500	Fixed cost
Classrooms	$1,600	$1,600	$1,600	$1,600	$1,600	Fixed cost
AV Equipment	$1,600	$1,600	$1,600	$1,600	$1,600	Fixed cost
Participants materials/supplies	$350	$350	$350	$350	$350	Fixed cost
SPSS software	$100	0	0	0	0	One-time cost
Incentives	$100	$100	$100	$100	$100	Recurring cost
Refreshments	$300	$300	$300	$300	$300	Recurring cost

Misc. (IT support, telephone, utilities, etc.)	$300	$300	$300	$300	$300	Recurring cost
Transportation	$1,921	$1,921	$1,921	$1,921	$1,921	IRS standard mileage rate
Total	***$7,771***	***$7,671***	***$7,671***	***$7,671***	***$7,671***	
Expenses – Contingency						
Contingency – 10% of project expense	$6834	0	0	0	0	Unforeseen expenses (Year 1)
Expense Total	***$75,175***	***$40,858***	***$41,853***	***$42,879***	***$43,935***	
Operating Income	***0***	***0***	***0***	***0***	***0***	

Appendix L

Project Expense Report

Source of Expense	Expense Description	Dollar Value	Type of Cost (fixed or variable)	Description of Cost	Estimated Volume	Expense Per Unit
Project Resources		**Cost ($)**				
Project Director	Project operations salaries for 234 hours	$11,700	Fixed	Operations salaries at $50/hr x 234 hours	234	$50
Advisory Team – six (6) members	Project operations salaries for 40 hours/person x 6 = 240 man hours	$12,000	Fixed	Advisory team salaries at $50/hr x 240 hours	240	$50
Class Participants – fifty (50)	Salaries of the participants in the training classes at $40/hour 13 hours/class x 50 = 650 man hours	$26,000	Fixed	Class participants salaries at $40/hr x 650 hours	650	$40
Internal Stakeholders – five (5)	Meetings with nursing stakeholders within the organization 2 hour/person x 5 = 10 man hours	$500	Fixed	Operations salaries at $50/hr x 10 hours	10	$50
Admin Assistant	Salary for admin support for 4 hours	$120	Fixed	Admin salary at $30/hour x 4 hours	4	$30
Trainers – four (4)	Salary for course trainers for 28 hours per person x 4 people = 112 man hours	$5,600	Fixed	Course trainer salaries at $50/hr x 112 hours	112	$50
Research Analyst – one (1)	Salary for Research Analyst for 9 hours	$450	Fixed	Research analyst salary at $50/hr x 9 hours	9	$50
Community Organization personnel – three (3)	Salary for Community Organization resources for 4 hours per person x 3 people = 12 man hours	$600	Fixed	Community org resources salaries at $50/hr x 12 hours	12	$50

BSU Faculty – six (6)	Salary for BSU Faculty resources for 6 hours per person x 6 people = 36 man hours ***Total Requested:***	$3,600 ***$60,570***	Fixed	BSU Faculty salaries at $100/hr x 36 hours	36	$100
Physical/Material Resources		**Cost ($)**				
Meeting Rooms	Meeting room space for the duration of the project	$1,500	Fixed	Meeting room charge at $100/hr. x 15 hours	15	$100
Classrooms	Classroom space for training sessions for approximately 50 people	$1,600	Fixed	Classroom charge at $100/hr. x 16 hours	16	$100
AV Equipment	Computer projector, speaker system and large screen to be used during training sessions	$1,600	Fixed	AV equipment charge at $100/hr. x 16 hours	16	$100
Participants materials/supplies	Class handouts for 50 participants	$350	Variable	Class handout printing and processing costs	1	$350
Survey Monkey software	Statistical s software for data analysis.	$100	Fixed	Purchase price	1	$350
Incentives	Class incentives consisting of 4 $25 gift cards to be presented during training sessions	$100	Fixed	Purchase price	4	$25
Refreshments	Class refreshments for 50 participants	$300	Variable	Purchase price	2	$150
Misc. (IT support, copier, paper, telephone, utilities)	Miscellaneous materials used throughout the project duration.	$300	Variable	Purchase price	1	$300
Transportation	Transportation cost for the Project Director for travel to various meetings throughout the project duration. ***Total***	$1,921 ***$7,771***	Variable	Estimated cost at $0.57/mile for 3,370 miles	3,370	$0.57

	Project Total Less Contingency	***$68,341***				
Contingency						
Contingency – 10% of project expense	Contingency to cover unforeseen costs	$6,834	Variable	10%	10%	$22,069
	Grand Total	***$75,175***				

Appendix M

Statement of Operations	
Revenues	
Arnot*Health* – Facilities training budget	$7,771
Arnot*Health* – Employee salary training budget	$55,920
Community Org - In-kind contribution	$1,050
BSU Faculty – In-kind contribution	$3,600
Contingency – 10% of project expense	$6,834
Total	***$75,175***
Expenses	
Project Resources	
Project Director	-$11,700
Advisory Team – six (6) members	-$12,000
Class Participants – fifty (50)	-$26,000
Internal Stakeholders – five (5)	-$500
Admin Assistant	-$120
Trainers – four (4)	-$5,600
Research Analyst – one (1)	-$450
Community Organization personnel – three (3)	-$600
BSU Faculty – six (6)	-$3,600
Physical/Material Resources	
Meeting Rooms	-$1,500
Classrooms	-$1,600
AV Equipment	-$1,600
Participants materials/supplies	-$350
SPSS software	-$100
Incentives	-$100
Refreshments	-$300
Misc. (IT support, copier, paper, telephone, utilities)	-$300
Contingency – 10% of project expense	-$6,834
Total	***-$75,175***
Operating Income	***$0***