

TRAINING NURSING STAFF TO RECOGNIZE AND RESPOND TO SUICIDAL  
IDEATION IN A NURSING HOME

Rebecca Kabatchnick

A Doctor of Nursing Practice Project submitted to the faculty at the University of North Carolina  
at Chapel Hill in partial fulfillment of the requirements for the degree of Doctor of Nursing  
Practice (Psychiatric-Mental Health Nurse Practitioner) in the School of Nursing.

Chapel Hill  
2017

Approved by:

Mary Lynn Piven

Mark Toles

Anna Beeber

© 2017  
Rebecca Kabatchnick  
ALL RIGHTS RESERVED

## **ABSTRACT**

Rebecca Kabatchnick: Training Nursing Staff to Recognize and Respond to Suicidal Ideation in a Nursing Home  
(Under the direction of Mary Lynn Piven)

The purpose of this project was to develop and utilize an educational module to increase confidence and knowledge of nurses and nursing assistants in a nursing home regarding recognition of and response to suicidal ideation among residents. Despite federally mandated screenings and protocols for suicide risk in nursing homes, active and passive suicidal thoughts are common among nursing home residents in particular. Suicidal ideation is a significant issue in nursing homes due to associated distress and the negative impact upon quality of life. Depression and hopelessness are strongly associated with suicide and suicidal ideation, but nursing home staff members receive limited training about late-life depression and suicide. To address this problem, I utilized a quality improvement design that included a learning needs assessment and educational module. I developed a web-based educational module based upon evidence-based recommendations and toolkits and a learning needs assessment. I implemented the educational module, pre-test, post-test, and 30-day follow-up test for nursing staff volunteers. I analyzed data from the pre-test and post-tests, and I measured outcomes including: 1) increased knowledge about and confidence with discussing suicidal ideation with residents, 2) increased knowledge regarding recognition of depression and warning signs of suicide, and 3) improved knowledge about and confidence with implementation of the site's suicidal ideation protocol. Results from the initial pre-test, post-test, and evaluation suggested that the confidence and knowledge levels of nursing staff improved after completing the educational module, as

evidenced by increased test scores and generally high confidence levels reported on evaluation survey responses. Results from the evaluation questions suggested that the nurses likely experience a higher level of confidence regarding recognizing and responding to suicidal ideation among residents, and nursing assistants may benefit from reinforcement of education regarding responding to residents expressing suicidal ideation and familiarity with the site's current suicidal ideation protocol. With increased knowledge and confidence responding to and recognizing suicidal ideation in nursing homes, nursing staff can help residents experience reduced morbidity and mortality related to suicidal ideation.

To my grandmother, Lilian Fink.  
I couldn't have gone on my journey in nursing without your inspiration, love, and guidance.

## TABLE OF CONTENTS

LIST OF ABBREVIATIONS.....	ix
CHAPTER 1: SUICIDAL IDEATION IN NURSING HOMES.....	1
Introduction.....	1
Background and Significance.....	2
Purpose.....	4
Plans for Intervention.....	5
Preliminary Meetings.....	5
Intervention.....	8
CHAPTER 2: REVIEW OF THE LITERATURE.....	10
Nursing Roles in Detecting Suicidal Ideation in Nursing Homes.....	10
Intervention Studies.....	10
SAMHSA Recommendations.....	11
Conclusions.....	12
CHAPTER 3: CONCEPTUAL AND THEORETICAL FRAMEWORK.....	14
Adult Education Theory.....	15
Interpersonal Theory of Suicide.....	16
Theory and Intervention.....	17
CHAPTER 4: METHODOLOGY.....	19
Setting.....	20

Subjects.....	20
Data Collection.....	20
Data Measures.....	22
Data Analysis Plan.....	23
CHAPTER 5: RESULTS, DATA ANALYSIS, AND OUTCOMES.....	24
Learner Needs Assessment/Educational Module Development.....	24
Pre-Test and Post-Test.....	28
Evaluation.....	30
CNA Evaluation Survey Responses.....	30
30-Day Follow-Up.....	31
CHAPTER 6: DISCUSSION.....	32
Strengths and Limitations.....	36
Sustainability and Recommendations for the Future.....	37
Conclusion.....	38
APPENDIX A: EVALUATION CONFIDENCE LEVEL QUESTIONS.....	40
APPENDIX B: PRE-TEST AND POST-TEST KNOWLEDGE LEVEL QUESTIONS.....	41
APPENDIX C: TRAINING EFFECTIVENESS DATA.....	42
APPENDIX D: EVALUATION SURVEY DATA.....	43
APPENDIX E: TEST ITEM ANALYSIS.....	45
APPENDIX F: 30-DAY FOLLOW-UP TEST AND EVALUATION.....	46
APPENDIX G: EDUCATIONAL MODULE CONTENT.....	48
APPENDIX H: MDS PART D—MOOD ASSESSMENT.....	52
APPENDIX I: SITE’S CURRENT SUICIDAL IDEATION PROTOCOL.....	53

REFERENCES.....54



## **LIST OF ABBREVIATIONS**

CDC	Centers for Disease Control and Prevention
CNA	Certified Nursing Assistant
DNP	Doctor of Nursing Practice
ED	Emergency Department
LPN	Licensed Practical Nurse
LTC	Long-Term Care
MDS	Minimum Data Set
PDSA	Plan, Do, Study, Act
PRF	Physician Request Form
RN	Registered Nurse
SAMHSA	Substance Abuse and Mental Health Services Administration
US	United States

## **CHAPTER 1: SUICIDAL IDEATION IN NURSING HOMES**

### **Introduction**

In 2011, the Centers for Disease Control and Prevention (CDC) estimated that 9,000 older adults died by suicide in the United States (U.S.) (Greenlee & Hyde, 2014). Older adults, especially older Caucasian men, in the U.S. tend to die at higher rates by suicide and are more likely to die on their first attempt of suicide compared to younger adults (Van Orden, Talbot, & King, 2012). Although the incidence of completed suicide among older adults in nursing homes is not well established (range of 19.7 to 94.9/100,000), residents in nursing homes may experience increased social isolation and mental and physical limitations, which are known risk factors for suicide (Mezuk, Rock, Lohman, & Choi, 2014). Mezuk et al. (2014) identified several organizational risk factors of nursing homes for depression and suicide, including: inadequate staffing, high staff turnover, organizational culture, large organizational size, time restraints of staff, and low per diem costs.

Compared to older adults in the community, many older adults experience different challenges before, and as a result of, needing to live in a nursing home, including: functional impairment, the loss of spouses, other family members, and friends, lacking confidants and meaningful relationships and companionships, struggling to find meaning in their lives, and feelings of helplessness, depression, and lower life satisfaction (Mezuk et al., 2014). Among older adults, mild cognitive impairment (highly prevalent in the late-life population) and distress are also associated with suicidal ideation (Ayalon, Mackin, Arean, Chen, & Herr, 2007). Although depression may not *always* be associated with suicidal ideation in late life, Conwell

and Brent (1995) predicted that approximately 85% of adults in late life, who died by suicide, were clinically depressed. Due to the strong association of depression with suicidal ideation among nursing home residents, prevention of depression and promotion of emotional health are important components of addressing and preventing suicidal ideation among this patient population.

### **Background and Significance**

Older adults expressing recent suicidal ideation may experience significant distress, anxiety, and depression, or they may have a history of suicidal ideation that could result in completed suicide (Van Orden, Simning, Conwell, Skoog, & Waern, 2013). Suicidal ideation is a significant issue in nursing homes due to such distress and the negative impact upon quality of life. Depression and hopelessness are strongly associated with suicide and suicidal ideation (among other preventable suffering and medical conditions), but nursing home staff members receive very limited training about depression and suicide in late life (Walker & Osgood, 2001). Depression is an especially important clinical diagnosis in care of older adults in nursing homes, and it occurs frequently. The prevalence of Major Depressive Disorder (MDD) in nursing homes is approximately 14.4% (with a range of 6% to 26%), the prevalence of minor depression is also 14.4% (with a range of 11% to 50%), and the prevalence of being diagnosed with depressive symptoms is 18.6% (Kramer, Allgaier, Fejtkova, Mergl, & Hegerl, 2009).

In literature regarding suicide in nursing homes, “passive suicidal ideation” generally includes refusing efforts to maintain life, as well as having suicidal thoughts but minimal intent to act upon such thoughts (Mezuk et al., 2014). Residents may make statements to CNAs (Certified Nursing Assistants), LPNs (Licensed Practical Nurses), or RNs (Registered Nurses), such as “I can’t go on” or “I am such a burden” that reflect passive suicidal ideation or the period

before suicidal ideation occurs. However, if CNAs (or other nursing staff) perceive depression to be normal among nursing home residents, they might not share such statements or observations with supervisory staff (Piven, Anderson, Colón-Emeric, & Sandelowski, 2008). Moreover, CNAs might hesitate to share their observations if they feel like nurses are not listening to their statements (Piven et al., 2008). In clinical care of residents, these statements must be noted, communicated to nursing supervisors, and addressed by mental health professionals through therapeutic interventions. In contrast to passive suicidal ideation, “active suicidal ideation” includes serious intent, consideration, or planning to complete suicide (Mezuk et al., 2014). Despite U.S. federally mandated screenings and protocols for suicide risk in long-term care (LTC) facilities, active and passive suicidal thoughts are common (prevalence up to 33%) among LTC facility residents in particular (O’Riley, Michael, Conwell, & Edelstein, 2013; Mezuk et al., 2014). A necessary step to avoid preventable suffering will be to increase knowledge about depression and suicide among RNs, LPNs, and CNAs in nursing homes. Further steps are needed to effectively implement treatment protocols in nursing homes for older adults expressing suicidal ideation.

The cost of suicide specific to nursing homes, as well as accurate prevalence information of suicide in nursing homes, is currently unknown. The CDC (2015) estimated that the cost of suicide to society is \$44.6 billion in combined medical and work loss costs in 2010. Zivin, Wharton, & Rostant (2013) estimated that the care of late-life depression in the U.S. resulted in an economic burden of over \$9 billion.

The 2012 Surgeon General National Strategy for Suicide Prevention identified targets of suicide prevention efforts that included healthcare organizations and programs that provide support to older adults (DHHS, 2012; Mezuk et al., 2014). Healthcare providers, including the

RNs, LPNs, and CNAs targeted in this project, have important roles in preventing suicide among older adults (Greenlee & Hyde, 2014). Suicide may be prevented in nursing homes through detection with the Minimum Data Set (MDS) 3.0 (at admission, discharge, and periodically throughout a nursing home stay), frequent contact with nursing home and mental health staff, monitoring during activities, contact with peers, and treatment of depression and other psychiatric disorders with medications (commonly antidepressants) and psychotherapy (Mezuk et al., 2014). RNs, LPNs, and CNAs need to be able to recognize symptoms so that they or another qualified staff member can perform an assessment to prevent suicidal ideation and suicide (Walker & Osgood, 2001). O'Riley et al. (2013) emphasized how the psychological reactions of RNs, LPNs, and CNAs to an older adult's expression of suicidal ideation could cause inappropriate, costly Emergency Department (ED) utilization. This project aimed to help RNs, LPNs, and CNAs feel more knowledgeable and confident with implementation of a suicidal ideation protocol in a nursing home in order to improve emotional health, prevent suicide among older adults, and prevent unnecessary ED visits. The primary outcome was increased confidence and knowledge of RNs, LPNs, and CNAs.

### **Purpose**

The purpose of this Doctor of Nursing Practice (DNP) project was to utilize an educational module to increase confidence and knowledge of RNs, LPNs, and CNAs in a nursing home regarding recognition of and response to suicidal ideation among residents. The approach was to survey (pre-test), educate, and re-survey (post-test and follow-up test) RNs, LPNs, and CNAs at the nursing home in a mid-sized city in North Carolina (NC). The rationale for intervening in this nursing home was the prevalence of depressive symptoms. Based on data in "Nursing Home Compare" for the 2014 to 2015 reporting period, long-term stay residents at this

nursing home screened positive for depressive symptoms, a known risk factor for suicide (Conwell and Brent, 1995), at a rate of 9.4%, which exceeded the state average of 3.8% and the national average of 5.6% (Medicare, 2016). The approach of the intervention was to train nursing home staff; to this end, I developed a pre-test, educational module about depression and suicide in nursing homes, and post-test, through utilization of evidenced-based materials and a learning needs assessment. I also conducted a 30-day follow-up test for evaluation of short-term changes in knowledge or confidence levels regarding recognizing and responding to suicidal ideation at the nursing home. The educational module included evidence-based materials from Substance Abuse and Mental Health Services Administration (SAMHSA) recommendations and toolkits, as well as information specific to the site's protocol (the current protocol) for residents expressing suicidal ideation.

## **Plans for Intervention**

### **Preliminary Meetings**

To initially learn about problems identified by nursing leadership at the site, I met with the social worker and the director of clinical education with whom the project was coordinated. The first meeting with the director of clinical education took place on November 30, 2015, and the second meeting took place with the social worker and director of clinical education on April 12, 2016. Each of the meetings was approximately one hour. During the informal meeting on April 12, 2016, the social worker and director of clinical education reported problems related to implementation of the suicidal ideation protocol, as well as the need for nursing education about staff roles for responding to a resident expressing suicidal ideation. The meeting involved open-ended questions regarding history and contents of the suicidal ideation protocol, educational needs of nursing staff regarding depression and suicidal ideation among residents. According to

the director of clinical education, the nursing leadership developed the site's suicide risk policy (based upon other nursing homes' policies the leadership researched) two years ago in response to a suicide attempt involving an Ativan overdose related to unrecognized drug hoarding behavior by one of the residents. This resident's Minimum Data Set (MDS) 3.0 mood assessment results are unknown by available informants still working at the site. The director of clinical education also explained that the resident reported the overdose to an RN one to two days after the suicide attempt, and at the time, there was no suicide risk policy in place at the time. The director of clinical education observed that if there had been a suicide risk policy in place, it is possible that nursing staff could have identified the resident's suicidal ideation, depression, and/or medication tracking/hoarding, communicated concerns to an RN supervisor or physician, and thereby prevented the suicide attempt. Although it is unknown if a different suicidal ideation protocol may have prevented the suicide attempt, the director of clinical education concluded that an educational offering regarding those topics may have helped staff better recognize the resident's suicide risk.

During the April 2016 preliminary meeting, I learned that residents are screened upon admission, periodically (as necessary), and quarterly during their nursing home stay, by the social worker (not an "MDS nurse") for suicide risk through the MDS 3.0 screening tool. The MDS 3.0 is a federally mandated process that involves publically reported assessments of residents' strengths and limitations that nursing home staff utilize in order to create individual care plans (Centers, 2016). Anderson et al. (2003) concluded how the clinical value of the MDS 3.0 for identification of depression might be limited. In "part D" of the "mood assessment" section of the MDS screening tool, the social workers asks the residents only one question (from the PHQ-9 in the mood assessment): during the past 2 weeks, if the residents has experienced

thoughts of feeling better off dead or of wanting to hurt themselves in any way. The mood assessment involves identification of signs and symptoms of mood distress, such as depression (Centers, 2016). If the resident screens positive for suicide risk during an MDS assessment (but is not deemed to be at “immediate” risk for suicide), then the social worker or nurse completes and submits a “physician request form” (PRF) for physician review. However, if a social worker or nurse completes a PRF *after* the physician or nurse practitioner leaves the site on a Friday afternoon, then a physician may not review the form until Monday morning. This finding is significant because there may be a gap in care over the weekend for residents expressing suicidal ideation, and RNs may have a role in preventing this problem.

During the November 2015 preliminary meeting, I also examined policies and procedures related to suicidal ideation at the site. I learned that the current suicide risk policy (Appendix I and Appendix G, slides 19 and 20), effective January 28, 2014, does not define a “suicidal statement” and does not include the RN, LPN, or CNA’s role in responding to a resident expressing suicidal ideation. The policy, which includes four steps, includes reporting “suicidal statements” to a nursing supervisor, completion of a suicidality screener by the nursing supervisor, and notification of the resident’s physician if the resident is determined to be at “high risk”. If a resident is not determined to be at high risk, the suicidality screener is sent to the resident’s physician, and the chaplain (to discuss spiritual or religious issues) and social worker are notified for follow-up. Since development of the four-step suicide risk policy, the clinical educator stated that “one to two” residents per year are sent to the Emergency Department for suicidal ideation/risk. Priorities identified by clinical staff in the preliminary interviews included development of a step-by-step guide for RNs, LPNs, and CNAs to utilize when they encounter a resident expressing suicidal ideation or behavior. The clinical educator identified the following



elements to be addressed in an educational module for RNs, LPNs and CNAs: knowledge of and confidence using the suicidal ideation policy and reporting process, knowledge of roles they play when a resident expresses suicidal ideation, and knowledge of what defines a “suicidal comment” in the protocol. Specifically, CNAs, LPNs, and RNs should increase knowledge and awareness about what comments to identify and report, and RNs and LPNs should increase knowledge about what to do once a suicidal comment is reported or expressed. These findings suggest that learning needs of nursing staff could be addressed by an educational intervention that increases both knowledge and confidence.

### **Intervention**

Based on existing published data (O’Riley et al., 2013) and findings in my preliminary meetings, I anticipated that an educational module addressing recognition of and response to suicidal ideation in the nursing home would improve staff confidence and knowledge about suicide and depression. For this DNP project, I intervened using a quality improvement framework (Plan-Do-Study-Act model) to improve the knowledge and confidence of RNs, LPNs, and CNAs to recognize and respond to depression, suicidal ideation, and warning signs of suicide among nursing home residents (primary outcome of the project). In the project, the outcome measures included: 1) increased knowledge about and confidence with discussing suicidal ideation with residents, 2) increased knowledge regarding recognition of depression and warning signs of suicide, and 3) improved knowledge about and confidence with implementation of the site’s suicidal ideation protocol. The project included three phases, including a pre-test to establish a baseline for these measures, implementation of an electronic educational module to build staff knowledge and confidence about recognizing and responding to depression, suicidal ideation, and warning signs of suicide, and a post-test, evaluation, and 30-day follow-up to assess

changes in the baseline outcome measures. Although patient health outcomes were not directly measured during this project's implementation, they are indirect goals of the project, and the evidence supports the need for effective implementation of suicidal ideation protocols in order to improve morbidity and mortality of residents expressing suicidal ideation. The clinical question for this project and review of literature is: "Does an educational module for RNs, LPNs, and CNAs regarding suicide protocol implementation in a nursing home setting improve nursing staffs' knowledge and confidence for recognizing and responding to suicidal ideation among older adults in a nursing home?"

## **CHAPTER 2: REVIEW OF THE LITERATURE**

### **Nursing Roles in Detecting Suicidal Ideation in Nursing Homes**

RNs, LPNs, and CNAs (“nursing staff” collectively) in nursing homes have a significant role in detection of suicidal ideation and management of suicide risk. Among nursing staff, passive attitudes and lack of recognition of suicide risk among older adults in nursing homes can prevent implementation of effective suicidal ideation protocols (Kjølseth & Ekeberg, 2012). Nursing staff may fail to recognize or appropriately respond to depression or suicidal ideation among residents in nursing homes, therefore increasing risk of suicidal behavior (Reiss & Tishler, 2008a). The Substance Abuse and Mental Health Services Administration (SAMHSA) recommends approaches to preventing suicide among older adults in nursing homes, including training staff to recognize and respond to depression and suicidal ideation (Mezuk, Lohman, Leslie, & Powell, 2015). RNs, LPNs, and CNAs in nursing homes can improve suicide prevention efforts by recognizing suicidal ideation and warning signs of suicide, and by implementing evidence-based suicide prevention interventions and protocols.

### **Intervention Studies**

Although the number of intervention studies addressing decreasing suicide risk in nursing homes is limited, knowledge and attitudes of staff members regarding suicidal ideation in older adults in nursing homes were positively impacted by educational interventions (Mezuk et al., 2014). Walker and Osgood (2001) conducted an efficacy study of the curriculum “Preventing Suicide and Depression” among 57 nursing staff members in two nursing homes with an outcome measure of knowledge of suicide and prevention techniques, attitudes toward suicide

and suicide prevention, and use of prevention practices (Mezuk et al., 2014). The study indicated that staff who received specialized training in depression and suicide among nursing home residents had significantly greater (20%) knowledge of suicide and prevention techniques, significantly improved attitudes towards preventing suicide and depression, and were more likely to perform practices of preventing depression and suicide (likeliness, knowledge, and attitudes were measured by a pre-test and post-test) (Mezuk et al., 2014). Muramatsu and Goebert (2011) conducted a cross-sectional study involving surveys of multidisciplinary nursing facility leaders regarding educational experiences and perceptions of the need for psychiatric services for residents in nursing homes. Main findings of the study included requests for further education in behavioral management of dementia (93.6%) and depression and suicide (77.7%) (Muramatsu & Goebert, 2011).

### **SAMHSA Recommendations**

Nursing home staff can utilize SAMHSA's recommendations in particular for the development of effective protocols to assess suicide risk among older adults in the nursing home setting. SAMHSA, an agency within the U.S. Department of Health and Human Services that spearheads evidence-based projects to improve behavioral health throughout the country, recommends universal and targeted interventions to prevent suicide among older adults in nursing homes (Mezuk et al., 2015). Nursing home staff can develop and implement effective suicidal ideation protocols according to the evidence-based recommendations in SAMHSA's *Promoting Emotional Health and Preventing Suicide: A Toolkit for Senior Living Communities* (O'Riley et al., 2013). Nursing home staff can also implement interventions recommended by SAMHSA, such as changing the physical and social environment in nursing homes to foster social networks and decrease depression (Murphy, Bugeja, Pilgrim, & Ibrahim, 2015).

SAMHSA recommendations and toolkits are useful for developing and effectively implementing protocols intended to assess suicide risk, and also for addressing modifiable risk factors for suicide among older adults in nursing homes.

### **Conclusions**

Nursing staff members encountering this patient population also have an important role in recognizing and supporting residents expressing warning signs of suicide or suicidal ideation (Kjølseth & Ekeberg, 2012). Nursing staff should address risk factors, such as social isolation and functional impairment, to decrease suicidal behaviors among older adult residents in nursing homes (O'Riley et al., 2013). Nursing staff could intervene with established, modifiable risk factors for suicide among older adults by promoting facilitated resident peer contact, monitoring and assisting with residents' activities of daily living, and connecting residents to healthcare professionals (Mezuk et al., 2014). However, despite the importance of the roles of RNs, LPNs, and CNAs in caring for residents at risk for suicidal behavior, as well as existence of evidence-based interventions for suicide prevention, there are gaps in the literature regarding older adults and suicidal ideation and behavior in nursing homes.

Gaps in the literature regarding older adults and suicide risk in nursing homes and lack of intervention studies for improving implementation of suicide risk protocols in nursing homes should be addressed in order to support interventions for preventing and addressing suicidal ideation. Moreover, there is limited investigation of some risk factors for suicidal ideation and behavior in nursing home settings. In their systematic review, Mezuk et al. (2014) found that although existing research regarding suicide risk in nursing homes is limited, suicidal ideation, suicidal behavior, and significant risk factors for completed suicide are prevalent among

residents in nursing homes. Moreover, the issue is important and should be addressed by clinicians (Mezuk et al., 2014).

There are gaps in understanding risk and protective factors, especially organizational risk factors (high staff turnover, time restraints, inadequate staffing, etc.), for completed suicide in nursing homes (Murphy et al., 2015). Moreover, suicide completion statistics frequently exclude the prevalence of suicidal ideation and suicide attempts, so the problem may not be recognized or addressed appropriately (Reiss et al., 2008a). Further research areas include investigations of the effect of state-level variability in policies regarding resident screening for suicide risk (Mezuk et al., 2015), as well as organizational risk factors for suicidal ideation and completed suicide that should be targeted for intervention (Murphy et al., 2015). New data could inform development of interventions and educational modules. Overall, there is a lack of knowledge regarding barriers that prevent nursing staff from consistently implementing suicidal ideation protocols. Further research about these topics could inform future development of interventions to help nursing staff more effectively implement suicidal ideation protocols.

### **CHAPTER 3: CONCEPTUAL AND THEORETICAL FRAMEWORK**

Two theories contributing to this DNP project are the Interpersonal Theory of Suicide and Adult Education Theory. The primary theory guiding development of this DNP project was the Interpersonal Theory of Suicide, proposed by psychologists Thomas Joiner (2005) and Kimberly Van Orden et al. (2010). I utilized the Interpersonal Theory of Suicide as a framework for explaining the significant roles of perceived burdensomeness, social isolation, and thwarted belongingness with completed suicide and suicidal ideation (Van Orden et al., 2010). Van Orden et al. (2010) emphasized how interventions and prevention efforts (such as the learning needs assessment and educational intervention in this DNP project) addressing the interpersonal concepts of perceived burdensomeness and thwarted belongingness could improve outcomes of older adults expressing suicidal ideation.

This DNP project involved an educational intervention designed to help CNAs, RNs, and LPNs to improve knowledge (appropriate for adult learners according to Knowles' theory) and comfort levels with their roles in recognizing (according to Joiner and Van Orden's theory) and responding to suicidal ideation among residents. The social worker at the project site utilized the MDS 3.0 to detect a higher-than-average rate (9.4%) of depressive symptoms at the site, but the MDS might not appropriately detect depressive symptoms (Heiser, 2004). Although the MDS 3.0 assesses psychosocial wellbeing and quality of life of residents, Heiser (2004) argued that a better screening tool is necessary to detect depressive symptoms and ultimately prevent suicide. CNAs in particular, who have an important role in observing signs of depression and provide

emotional care for residents (Piven et al., 2008), could help with the efforts in detecting depression and ultimately assisting in recognizing suicidal ideation.

### **Adult Education Theory**

Malcolm Knowles' Adult Education Theory (Androgogy) emphasizes the importance of adults undergoing education in order to create "change" in skills, knowledge level, attitude, and behavior (Russell, 2006); for this reason, I utilized the Adult Education Theory to guide the intervention work in this DNP project. Knowles' Adult Education Theory (1970) describes adult learners as having the following characteristics: self-directed/autonomous, goal-oriented, and relevancy-oriented, accumulated a foundation of experiences and knowledge, practical, and requiring respect (Russell, 2006). This theory applies to nursing home staff because RNs, LPNs, and CNAs, as adult learners participating in clinical education, may benefit from education approaches that are relevant to their job roles and offer practical solutions and examples. Russell (2006) explained that, according to Knowles' theory, healthcare providers should convey a desire to connect with adult learners when providing education, as well as providing positive reinforcement. Knowles' theory was considered when developing an educational module for this DNP project, specifically related to outcomes including staff knowledge level and attitude toward suicide and suicidal ideation among older adults. Blair et al. (2012) discussed the need to consider the educational differences between licensed and non-licensed staff when providing mental illness training in the nursing home setting. Blair et al. (2012) used a method that incorporated adult learning needs and reading levels. For instance, CNAs were educated in a web-based program using short words and second-sixth grade reading level, contrasting the reading level used for RN and LPN education (approximately tenth grade or higher) (Blair et al., 2012). Magnussen (2008) argued that web-based education is both accessible and convenient,



and through thoughtful consideration of Knowles' androgogy (adult education) characteristics (1970), can provide quality education for adult learners. Walker, Harrington, and Cole (2006) also emphasized how web-based education for nurses was convenient and cost-efficient. Therefore, I delivered this project's educational module to the nursing staff at the project site through an electronic educational system, Relias Learning.

### **Interpersonal Theory of Suicide**

The Interpersonal Theory of Suicide explains the "problem" of suicidal ideation among older adults in nursing home settings and addresses the significant roles of the interpersonal concepts of thwarted belongingness and perceived burdensomeness in suicidal behavior (Van Orden et al., 2010). Thwarted belongingness includes the social isolation that is one of the most reliable predictors of suicidal ideation, suicide attempts, and completed suicide among all age groups (Van Orden et al., 2010). Social isolation is especially pertinent in the nursing home setting. Thomas, O'Connell, & Gaskin (2013) discussed the importance of considering residents' family relationships, peer relationships, and seating placement at dining room tables in order to improve the residents' social interaction and well-being. Increased perceived burdensomeness is related to three of the most significant risk factors for suicidal behavior: familial conflict, unemployment, and physical illness (Van Orden et al., 2010). Researchers utilized the Interpersonal Theory of Suicide to provide a framework for explaining or investigating the reasons for suicidal behavior among older adults in particular (Van Orden et al., 2015). Researchers also used the theory to focus the assessment and management of older adults expressing suicidal ideation or engaging in suicidal behavior (Cukrowitz, Jahn, Graham, Poindexter, and Williams, 2013; Jahn, Van Orden, & Cukrowicz, 2013; Van Orden et al., 2010; Van Orden et al., 2012a).

The Interpersonal Theory of Suicide explains the risk factors that nursing staff should be knowledgeable about that place older adults in nursing home settings at higher risk for suicidal ideation and behavior. For instance, Van Orden et al. (2015) emphasized how older adults experiencing thwarted belongingness in particular tend to utilize more lethal means of suicidal behavior and have poorer prognosis compared to older adults not reporting thwarted belongingness. Moreover, among the older adult population, perceived burdensomeness is more common than in younger adults, and perceived burdensomeness is associated with suicide risk (Jahn et al., 2013). Jahn et al. (2013) discussed how perceived burdensomeness is especially relevant for older adults because they may require more assistance with finances, activities of daily living, and other aspects of life. Jahn et al. (2013) emphasized how clinicians should assess whether an older adult feels burdened. Results from the research of Jahn et al. (2013) suggested that perceived burdensomeness on a spouse is associated with higher risk of suicidal ideation and behavior, so it is important that RNs and LPNs recognize, and that CNAs notify RNs or other supervisors if they recognize, this form of perceived burdensomeness in particular while interacting with an older adult in a nursing home setting. Nursing home staff can listen for language from residents expressing how their families may be “better off without them” or that they are “just a burden to everyone else” and report these verbalizations to supervising RNs or physicians.

### **Theory and Intervention**

The Interpersonal Theory of Suicide not only explains the etiology of suicide, but also provided a basis for prevention and intervention efforts, such as this DNP project, for suicidal individuals based upon the interpersonal concepts of thwarted belongingness and perceived burdensomeness (Van Orden et al., 2010). Knowles’ Adult Education Theory guided this DNP

project by providing a framework for practical education delivery that emphasized changing knowledge level, attitude, and behavior (outcomes of this project). Van Orden et al. (2010) emphasized how the Interpersonal Theory of Suicide suggests that interventions addressing (directly or indirectly) perceived burdensomeness and thwarted belongingness should result in the “best outcomes” among individuals experiencing suicidal ideation or behavior (p. 592). Although there is an overall lack of both qualitative and quantitative data regarding suicidal ideation/behavior among older adults in nursing homes, the Interpersonal Theory of Suicide guided this DNP project by providing a framework for the assessment of learning needs of nursing staff related to recognition and management of perceived burdensomeness and thwarted belongingness, as well as other known risk factors for suicidal ideation and behavior among older adults in nursing homes. The educational module emphasized the importance of the nursing staff’s roles in decreasing social isolation and burdensomeness in the nursing home setting. The theory’s interpersonal concepts, as well as evidence-based recommendations from SAMHSA and components of Knowles’ Adult Education Theory, provided a framework for development of an educational intervention.

## CHAPTER 4: METHODOLOGY

I utilized a quality improvement design method that included a learning needs assessment and educational module. The project followed the “Plan, Do, Study, Act” (PDSA) cycle for healthcare quality improvement (Taylor et al., 2014). For the “Plan” stage during spring and summer of 2016, I based development of the educational module upon SAMHSA recommendations and learning needs assessments involving preliminary meetings with the director of clinical education and social worker at the project site, as well as focus groups with nursing staff members. In particular, slides in the educational module for this project included information from the SAMHSA’s *Promoting Emotional Health and Preventing Suicide: A Toolkit for Senior Living Communities* (SAMHSA, 2010), such as examples of staff responses to suicidal statements, warning signs of suicide, how nursing staff can promote emotional wellbeing, and types of suicidal behavior (Appendix G: slides 5, 10, 12, 13, 14, 15, 16, and 17). The “Do” stage involved implementation of the educational module, pre-test, post-test, and 30-day follow-up test for RN, LPN, and CNA volunteers during fall/winter of 2016. Participants completed follow-up post-tests and evaluations approximately 30-days after completion of the educational module. The “Study” stage included analysis of data from the pre-test, post-tests, evaluation surveys, and 30-day follow-up tests, as well as measurement of outcomes including: 1) increased knowledge about and confidence with discussing suicidal ideation with residents, 2) increased knowledge regarding recognition of depression and warning signs of suicide, and 3) improved knowledge about and confidence with implementation of the site’s suicidal ideation protocol. The “Act” stage included a proposal of improvements for future educational offerings

regarding implementation of suicidal ideation protocols at the site, as well as recommendations for improvements for implementation of the site's current suicidal ideation protocol.

### **Setting**

The setting for this project was a nursing home in a mid-sized city in NC that included 84 skilled nursing beds, with a secure 18-bed unit for residents with dementia. I implemented the project in the nursing home during November and early December of 2016 (with 30-day follow-up in January 2017).

### **Subjects**

The convenience sample for the project included 10 RNs/LPNs and 16 CNAs at the facility. For data collection purposes, I grouped together RNs and LPNs in the educational system due to similar roles and scopes of practice in the suicidal risk protocol at the project site. Subjects included RNs, LPNs, and CNAs volunteering to participate in the project. I recruited the RNs, LPNs, and CNAs for participation in the initial module and 30-day follow-up test with assistance of the director of clinical education at the site, via emails to nursing staff regarding the purpose of the project and how participants could complete the educational module. Before the module was finalized and made available to staff members, the clinical educator emailed the nursing staff regarding the purpose of the project and invited interested staff members to participate in the module. Four weeks after assignment of the initial module, the clinical educator also emailed the nursing staff regarding the purpose of participation in the 30-day follow-up test.

### **Data Collection**

The project earned exemption from the Institutional Review Board (IRB) on September 7, 2016 (before implementation). During the "Plan" stage in early fall of 2016, I conducted a

learning needs assessment to aid in development of an educational module. The purpose of this analysis was identification of priorities and needs of the site that would be addressed by the project intervention. This learning needs assessment involved input from Dr. Mary Lynn Piven (DNP committee chair), Dr. Mark Toles (DNP committee member), Dr. Anna Beeber (DNP committee member), the director of clinical education at the site, as well as other available staff members at site. Focus groups in early September of 2016 addressed the attitudes, confidence levels, and learning gaps identified by RNs (6 RN supervisors) and CNAs (2 day shift CNAs and 2 night shift CNAs) regarding depression, suicidal ideation, and completed suicide among residents. This analysis included interviews conducted with the staff members at the project site, as well as ongoing meetings with committee members.

I performed preliminary meetings with nursing leadership in November, 2015 and April, 2016 in order to gather data and identify themes related to learning needs that were addressed in the educational module. I took notes during interviews and meetings, and I incorporated themes and priorities into the project. The educational module incorporated learning needs identified by the stakeholders, as well as evidence-based recommendations from SAMHSA's *Promoting Emotional Health and Preventing Suicide: A Toolkit for Senior Living Communities*. In addition to information from the SAMHSA toolkit, concepts associated the Interpersonal Theory of Suicide, including addressing social isolation, loneliness, burdensomeness, and the search for meaning among residents in nursing homes, was included in the educational module. I included a step-by-step guide to addressing suicidal ideation, warning signs of suicide, and depression at the project site in the educational module.

## **Data Measures**

The “Do” stage involved pre-test, implementation of the educational module, post-test, and evaluation for RN, LPN, and CNA volunteers during November and early December of 2016. The clinical educator assigned the module to the RNs, LPNs, and CNAs in a PowerPoint format through the site’s electronic educational system. I presented the module as a series of PowerPoint slides without audio/video components due to limitations of the electronic system. I decided that an electronic mode of delivery was most efficient and practical way to engage most nursing staff due to staff scheduling limitations. I based the tools for this project, including the pre-test (Appendix A), post-test (Appendix A), and evaluation (Appendix B) distributed to RNs, LPNs, and CNAs, upon the learning needs assessment. I offered the pre-test before presenting the educational module. Participants completed a post-test (same items as the pre-test) immediately following the presentation. I offered a follow-up test approximately 30 days after initial completion of the educational module. The pre-test, post-test, follow-up test, and evaluation questions addressed the nursing staff’s knowledge and confidence level regarding several topics. Topics included the following: responding to residents with suicidal ideation, knowing what constitutes “suicidal behavior” or a “suicidal comment”, locating and implementing the site’s suicidal ideation policy, recognizing signs of suicide and depression, and identifying the RN, LPN, or CNA’s role in responding to residents expressing suicidal ideation. There were separate slides regarding roles for CNAs and RNs/LPNs taking scope of practice and educational background into consideration. For instance, the “CNA roles” section emphasized the CNA’s communication of depression and suicide warning signs and comments to RNs. To address educational background differences, I wrote the educational module materials on an 8<sup>th</sup> grade or lower reading level and minimized technical or medical jargon/language. The tests

were reviewed with the members of the DNP committee before implementation. A copy of all educational materials is available within the electronic educational system for RNs, LPNs, and CNAs who are unable to complete training during project implementation.

### **Data Analysis Plan**

The “Study” stage included descriptive statistical analysis of data from the pre-test, post-test, evaluation, and 30-day follow-up data. Data described staff confidence levels with discussing suicidal ideation with residents, knowledge of the site’s protocol and procedure for responding to residents expressing suicidal ideation, and knowledge regarding recognition of the warning signs of suicide. I used a descriptive statistics to analyze categorical data comparing knowledge and confidence before and after the educational module was presented, as well as between RNs/LPNs and CNAs. According to data analysis results, the “Act” stage included development of a proposal of improvements, such as suggestions for more frequent education for CNAs in particular, for future educational offerings regarding implementation of suicidal ideation protocols at the site.



## **CHAPTER 5: RESULTS, DATA ANALYSIS, AND OUTCOMES**

### **Learner Needs Assessment/Educational Module Development**

During the focus groups (one group of 6 RNs and one group of 4 CNAs) for the learning needs assessment, I asked the participants a series of open-ended questions about their perceptions, experiences, and learning needs regarding depression and suicidal ideation among residents at the nursing home. The answers to those questions impacted development of materials for slides for the educational module (Appendix G). When asked about what depression “looks like” among residents at the site, the RNs emphasized how residents would withdraw into their rooms and begin making passive suicidal comments, such as “it’s time for me to go” or “I shouldn’t be here anymore”. The RNs noticed physical downturns and sadness associated with losing independence as residents moved from independent or assisted living to the nursing home section of the site. The CNAs noticed the following: crying, sadness, and withdrawal among the residents they considered “depressed”. From these responses, I identified a need for clarification of how depression could present among residents in nursing homes (Appendix G: slides 6, 7, and 8).

The RNs discussed how depression or suicidal ideation could impact the quality of life of residents in the nursing home because they may withdraw from other residents, and if they do not have visitors, their physical health and grief of their loss of independence could worsen. The CNAs commented that the residents may “not have a life” if the residents experience depression or suicidal ideation. I determined that the RNs and CNAs could benefit from more explanation of the impact of depression and suicidal ideation upon the lives of residents in nursing homes, as

well as how to detect the multiple suicide risk factors that residents could experience (Appendix G: slides 3, 6, 7, 8, and 9).

When questioned about examples of suicidal ideation, behavior, or comments that they have encountered in their practice, the RNs gave examples of residents making the following comments: “we just keep us living longer and don’t know what to do with us”, “if I would have a way to kill myself, I would do it today”, and “I will hit my head and finally die”. The RNs told stories of how two residents stockpiled/hoarded pills, and how one frequently fell on purpose to try to kill herself with injuries. The RNs had experience initiating frequent checks and completing physician request forms when residents made suicidal comments. Two of the RNs stated that they had experience sending residents to the Emergency Department for psychiatric reasons. The CNAs gave the following examples of residents making suicidal comments: “I don’t want to be here anymore”, “no one comes to see me”, “I’m so lonely”, “I don’t have anybody”, “I wish someone would knock me out and end this”, “if this was over with, my family wouldn’t have to worry anymore”, “I want to see my dead family again”, “that man there is coming to get me”, and “I want to see my mom again”. The CNAs gave more examples than the RNs about passive suicidal comments, but they did not recall any incidents of active suicidal ideation. Thus, I included in the educational module specific details about the difference between passive and active suicidal ideation, as well as other examples of suicidal comments and behavior (Appendix G: slides 7, 8, 9, and 10). The module also included educational material about warning signs of suicide that both RNs and CNAs can be aware of during their daily interactions with residents (Appendix G: slide 10).

When asked what nurses can do to prevent worsening depression or suicidal ideation among residents, the RNs discussed how nurses could encourage activities and socialization, not

be as task-oriented, talk to residents more about their preferences and what they care about and their motivations, and bring residents to common areas in the evenings. The CNAs discussed how nurses and nursing assistants could encourage more activities, offer distractions, help with stress relief, encourage decorations and family pictures in the room, encourage visitors, sing with the residents who like to do so, and make the residents laugh. Thus, in the educational module, I also emphasized the roles of nurses and nursing assistants in preventing suicidal ideation and depression, as well as how nurses and nursing assistants can positively influence the residents' environments (Appendix G: slides 12, 13, 14, 15, 16, 17, 21, 22, and 23).

The RNs identified obstacles to responding to residents expressing suicidal ideation as including workload, time constraints, lack of mental health staff/psychiatrists, documentation, trying to “figure out whether or not a suicidal comment is serious”, feeling helpless in helping residents feeling suicidal, and lacking the opportunity/time to have therapeutic conversation. The RNs also identified ethical considerations, such as feelings that they should not necessarily intervene when a resident expresses suicidal ideation as a manifestation of feeling “ready to die”. The CNAs also expressed that time constraints and tasks were major obstacles, but they also stated that sometimes “residents don't want anything to do with you”, or residents are agitated. The CNAs also discussed how the patient's rights not to participate in activities were obstacles as well. To address this gap in understanding, I added detail in the educational module about the ethical considerations for intervening with residents expressing suicidal ideation. I also added detail about the RN's, LPN's and CNA's roles in addressing suicidal ideation among residents at the nursing home in order to help the staff members overcome the barriers they discussed during the learning needs assessment (Appendix G: slides 18, 21, and 22).

The RNs discussed the following skills that they would like to learn better in regards to preventing suicidal ideation and depression among residents: a better protocol as to when someone makes a comment, especially for CNAs and direct care workers, as well as “when it is important to tell somebody” about a suicidal comment and “when it is okay to listen, report or take action”. The CNAs discussed how they would like to learn how to “make them feel better, how to more effectively talk to patients, how to “keep from arguing” with residents making irrational comments, and how to distract residents more effectively. Accordingly, I added examples in the educational module of statements and questions to use or avoid with residents expressing suicidal ideation, as well as how nursing staff can take action when they hear suicidal statements (Appendix G: slides 15, 16, 17, and 22).

When questioned about how resident at the nursing home have the potential to hurt themselves, the RNs discussed the following examples: scissors, falling, hoarding, stop eating/drinking, and noncompliance with medications or treatment. The CNAs mentioned only that the residents could make themselves fall. Thus, the educational module included examples of active and passive suicide attempts, as well as other potential ways in which residents could hurt themselves (Appendix G: slides 5, 6, 7, 8, 9, and 10).

During our discussion about special considerations for residents with dementia, the RNs discussed how with cognitive impairments, it is not always clear about whether or not the resident can make any rational decisions, and that sometimes residents know what is going on and can still have the desire to die. One of the RNs explained “when you’re with them it can be enough, and there’s sometimes a light and spark and some rationality still there”. The RNs emphasized the importance of having consistent caregivers and building rapport with patients who may be depressed or have cognitive impairment. The CNAs discussed how residents with

cognitive impairment should be “treated the same” as other residents, and that it is important to “get their minds off of bad things” and distract them. The educational module emphasized the importance of addressing depression and suicide warning signs among all residents, including those with cognitive impairment (Appendix G: slides 4, 5, 6, and 10).

When questioned about how RNs and CNAs can work better together to address suicidal ideation among residents, the RNs discussed how they could help “CNAs feel listened to”, support the CNAs, improve communication with the CNAs, and offer education to empower CNAs. The CNAs emphasized how they work well as a team with the RNs, and that they need to be heard as CNAs. The educational module included the protocol for RNs, LPNs, and CNAs to address suicidal ideation, and the materials incorporated a step-by-step guide for RNs, LPNs, and CNAs in their particular roles (Appendix G: slides 19, 20, 21, and 22).

In summary, this formative work with the nursing home staff helped me tailor evidence-based materials to the specific needs of the staff at the nursing home. This procedure was consistent with the broad goals of the quality improvement approach in my project.

### **Pre-Test and Post-Test**

I developed data reports within the site’s electronic educational system, Relias Learning, with results of the pre-test, post-test, and evaluation that the 26 participants (10 RNs/LPNs and 16 CNAs) completed during the educational module implementation from November 19, 2016 until December 12, 2016. According to the “training effectiveness” data report (all participants, including RNs, LPNs, and CNAs), the average pre-test score was 85% correct, and the average post-test score was 95% correct. Scores on the pre-test ranged from 60% to 100% correct, and scores on the post-test ranged from 80% to 100% correct. According to the “training effectiveness” data report for CNAs only (Appendix C), the overall scores improved from 81%

to 93%. 100% of the test scores among the CNA participants either stayed the same (31%) or improved (69%). The participants whose scores stayed the same may require additional training in order to improve scores. The “training effectiveness” data report for RNs and LPNs (Appendix C) showed that the overall scores improved from 91% to 97%. The test scores for RN and LPN participants either stayed the same or improved for all but one participant. The one participant with a lower post-test score may have needed an alternative learning modality or experienced some difficulty understanding or remembering one or more concepts. These results suggest that the educational materials helped nursing staff to improve knowledge about recognizing and responding to suicidal ideation among residents. However, some staff members may require more simplified language/examples or repeated educational offerings in order to improve test scores.

The pre-test “item analysis” data report (Appendix E) suggested the question that was most missed (39.3% correct) by participants (RNs, LPNs, and CNAs) was the true/false question: “An example of a good question you can ask a resident about suicide is: ‘Are you thinking about ending your life?’”. The post-test “item analysis” data report (Appendix E) showed that the percentage of correct answers to this question increased to 82.1% correct by participants (RNs, LPNs, and CNAs). These results suggest that although a majority of participants missed this question before encountering the educational materials, knowledge possibly gained from the educational materials may have helped improve correct responses to this question. According to the post-test “item analysis” data report, all test items were correctly answered by at least 82.1% of the participants (RNs, LPNs, and CNAs), suggesting that no items need to be eliminated from the test in the future.

## **Evaluation**

The “evaluation survey analysis” data report (Appendix D) showed that a majority of participants (RNs, LPNs, and CNAs) expressed that they “mostly” or “completely” agree with the following: knowledge of how to respond to a resident making a suicidal comment, confidence in holding a conversation with a resident making a suicidal comment, familiarity with the site’s process and policy regarding residents expressing suicidal ideation, understanding their role in responding to a resident expressing suicidal ideation, and understanding what constitutes a suicidal comment and what comments should be reported to a supervisor (physician or RN). The participants also expressed that they “mostly” or “completely agree” with: understanding what nurses and nursing assistants can do to prevent suicide risk among residents, confidence with recognizing signs of depression and warning signs of suicide among residents, and knowing where to locate the site’s policy and procedures regarding residents expressing suicidal ideation.

### **CNA Evaluation Survey Responses**

The items on the evaluation completed by the CNAs with the highest numbers of “disagree” or “slightly agree” responses included: knowing where to locate the site’s policy and procedures regarding residents expressing suicidal ideation (25% disagree and 31.25% slightly agree), confidence in holding a conversation with a resident making a suicidal comment (12.5% disagree and 25% slightly agree), and knowing what to say when responding to a resident who is making a suicidal comment (0% disagree and 31.25% slightly agree). However, the responses to the same evaluation items (as well as all other evaluation items) by the RNs and LPNs were 0% disagree and 0% slightly agree. The remainder of evaluation items for CNAs had relatively high (80% or above) responses of “mostly agree” or “completely agree”. These results suggest that the RNs and LPNs likely experience a higher level of confidence regarding recognizing and

responding to suicidal ideation among residents, and CNAs may benefit from reinforcement of education or role-plays with nurses addressing holding conversations with and responding to residents making suicidal comments, as well as locating the site's policy and procedures regarding this topic.

### **30-Day Follow-Up**

I conducted the 30-day follow-up for this project in early January, 2017. The purpose of a 30-day follow-up was to evaluate stability of learning over a short period time in knowledge or comfort levels regarding recognizing and responding to suicidal ideation among residents. Seven of 26 volunteers participated in the follow-up tests (repeated post-test and evaluation), including three RNs/LPNs and four CNAs. The follow-up test "item analysis" data report (Appendix F) showed that all questions were answered correctly by 85.7% of participants, except for "An example of a good question you can ask a resident about suicide is: 'Are you thinking about ending your life?'" (28.6% correct) and "Depression is a normal part of aging" (71.4% correct). Through follow-up up with an alternative educational modality, such as role-play or facilitated discussion, participants could further explore these concepts (Fitzgerald & Keyes, 2014). More emphasis upon or practice with communication (perhaps through role plays or demonstrations) with residents expressing suicidal ideation could help nursing staff further develop skills and retain the information for a longer period of time.



## CHAPTER 6: DISCUSSION

This DNP project intervention addressed a lack of knowledge and confidence among nursing home staff regarding recognizing and responding to suicidal ideation. Improvements in test scores and results from the evaluation surveys suggested that the project met all objectives. The objectives included: 1) increased knowledge about and confidence with discussing suicidal ideation with residents, 2) increased knowledge regarding recognition of depression and warning signs of suicide, and 3) improved knowledge about and confidence with implementation of the site's suicidal ideation protocol. Nursing staff members have a significant role in recognizing and responding to suicidal ideation among residents, and a lack of recognition among older adults in nursing homes can contribute to the problem of suicidal ideation among residents (Kjølseth & Ekeberg, 2012; Reiss & Tishler, 2008a). Since the MDS 3.0 likely under-detects depression, the responsibility of depression detection is often informal and left to nursing staff not conducting MDS screenings. Anderson et al. (2003) hypothesized that nursing home staff may lack the ability to recognize symptoms related to depression on the MDS. The observations of CNAs in particular are crucial for depression and suicidal ideation identification in nursing homes (Piven et al., 2008). Therefore, CNAs and other nursing staff must understand that depression is not normal among residents in nursing homes, and their statements and observations are valued (Piven et al., 2008). The educational module in this project improved knowledge and awareness about the roles of CNAs and other nursing staff members as evidenced by improvements in test scores (Appendix C, Appendix D). The module also included ways that nursing staff could intervene with modifiable risk factors for suicide among residents, as

discussed by Mezuk et al. (2014), through promotion of social interaction, connections between residents and staff, and assistance with residents' activities of daily living (Appendix G, slides 13, 14, and 15). Meeks and Looney (2011) concluded that positive nursing home staff engagement in residents' activities was associated with the pleasure and interest of depressed residents. These findings suggest that nursing staff members are key players in recognizing and responding to suicidal ideation among residents, as well as emphasized the importance of an active role in addressing this problem.

This project incorporated SAMHSA recommendations that the literature suggested could help prevent suicide among older adults in nursing homes (Mezuk et al., 2015). In particular, the module included evidence-based recommendations in SAMHSA's *Promoting Emotional Health and Preventing Suicide: A Toolkit for Senior Living Communities* that O'Riley et al. (2013) suggested were useful for effective implementation of suicidal ideation protocols. Although there is limited evidence of this toolkit's implementation in practice, this project showed the implications of using the recommendations from the toolkit in a nursing home.

During preliminary meetings and focus groups, nursing staff at the site expressed a need to learn more about recognizing and responding to suicidal ideation. This project met most of their learning needs, as well as the need identified by Muramatsu and Goebert (2011) for more education regarding depression and suicide for nursing home staff (nursing leaders in particular), by including content addressing needs expressed during the preliminary meetings and focus groups. Similar to other educational modules addressing this project's topic (Mezuk et al., 2014), this project also improved knowledge of nursing staff regarding suicidal ideation in the nursing home. The improvement in initial pre-test to post-test scores (6% for RNs/LPNs and 12% for CNAs) is less substantial than the improvement in knowledge (20%) regarding suicide

prevention in LTC facilities in the Walker and Osgood (2001) study that Mezuk et al. (2014) discussed in their systematic review.

Both the Interpersonal Theory of Suicide and Adult Education Theory provided frameworks for this project. The educational module provided examples of nursing staff roles in addressing perceived burdensomeness and thwarted belongingness, such as helping residents feel comfortable, find meaning, and form relationships (Appendix G, slides 13, 14, 15). Although Mezuk et al. (2014) explained in their systematic review how the number of intervention studies addressing decreasing suicide risk in nursing homes is limited, the researchers emphasized how educational interventions (like this project) could positively impact knowledge and confidence of staff members regarding suicidal ideation. In their recent systematic review, Simning & Simons (2017) noted a significant lack of randomized-controlled trials regarding treating and preventing depression in nursing homes, and there is limited evidence that promotes interventions to reduce social isolation. Haugan, Innstrand, and Moksnes (2013) emphasized how nurse-patient relationships in nursing homes impacted patients' depression and anxiety symptoms, sense of self-respect, self-worth, dignity, meaning in life, and overall wellbeing. The educational module in this project addressed such relationships by promoting positive relationships between nursing staff and residents.

This project also encouraged effective communication between nursing home staff members, as well as understanding of staff roles, in order to improve the quality of care for residents expressing suicidal ideation. During preliminary meetings, the director of clinical education and social worker explained how identification of depression at the site was driven by MDS 3.0 screenings (Appendix H). MDS coordinators (such as the social worker conducting the MDS mood assessments at the project site) can positively influence the quality of care in nursing

homes by fostering high-quality connections and information flow (Piven et al., 2006). Although the social worker at the project site screens patients for depression according to the MDS 3.0 upon admission, periodically (as necessary), and quarterly during their nursing home stays, Anderson et al. (2003) discussed how the MDS 3.0 may have limited clinical value for identification of depression. The suicidal ideation policy at the site mentioned communication with the social worker conducting the MDS 3.0 mood assessment, but the policy lacked explanation of nursing staff roles that would help them understand changes to the care plan. In order to improve quality of care for patients, this project's educational module aimed to improve knowledge and confidence regarding recognizing and responding to suicidal ideation in nursing home, as well as discussed how effective communication between nursing home staff members.

Results from the initial pre-test, post-test, and evaluation survey suggested that the confidence and knowledge levels of RNs, LPNs, and CNAs improved after education via the electronic modules, as evidenced by improvements in pre-test and post-test scores, as well as evaluation survey responses. Although scores generally improved on the 30-day follow-up post-test, there may not have been a significant improvement in knowledge since the response rate for the follow-up test was relatively low. Results from the 30-day follow-up evaluation survey also suggested that most participants (except for a small percentage of CNAs) felt familiar with the site's protocol and procedure for responding to residents expressing suicidal ideation, as well as knowledgeable about recognizing depression and warning signs of suicide. The high levels of confidence and knowledge regarding recognizing and responding to suicidal ideation among residents at the nursing home after completion of the educational module suggest that the site's suicidal ideation protocol may be implemented more effectively in the future.

## **Strengths and Limitations**

Limitations of this DNP project include delivery of educational materials electronically instead of face-to-face, lack of previously tested educational materials and tests, staffing, time and technological constraints, and lack of facilitated discussion, role-play, or skills building as components of education. Due to technological constraints, I presented the module as a series of PowerPoint slides, but they lacked audio/video components. Due to staffing and time constraints, I determined that an electronic mode of delivery was most efficient way to engage the most nursing staff available instead of scheduling face-to-face classes with facilitated discussion and/or role-play (that would have had limited participation and attendance). There was a notable decrease in participation between the initial module (26 participants) compared to the 30-day follow-up module (seven participants), so the results from the follow-up module might not provide data as meaningful as the data from the initial module. Since there are gaps in the literature and a lack of research regarding this topic, I developed educational materials and measurement scales for this project.

Strengths of this DNP project include practicality and ease of educational material delivery via an electronic educational system, improvements in test scores after educational material delivery, integration of SAMHSA recommendations into the educational module, engagement of and participation by the nursing staff at the site, and exploration of an issue that lacks previous research. Twenty-six volunteers (out of more than 40 potential participants) successfully complete the entire module, and there were improvements in a majority of test scores after participants completed the module. The electronic system produced data reports about training effectiveness, evaluation survey results, and item analysis from the pre-test, post-test, and follow-up test. This project explored the issue of recognition of and response to suicidal

ideation in nursing homes, and the success of the module could lead to positive change in how nurses and nursing assistants address this issue.

### **Sustainability and Recommendations for the Future**

I discussed proposals for future interventions and changes to the educational module with the director of clinical education at the site. In the future, clinical educators could provide more intensive, face-to-face education about recognizing and responding to suicidal ideation in nursing homes. The clinical educator could schedule face-to-face sessions annually or incorporate this training into staff orientation. This project will be sustainable with assistance from the director of clinical education at the project site. The educational materials will be available on the electronic educational system for nursing staff to access if they need a reference or further education regarding recognizing and responding to suicidal ideation among residents at the site. The module could be assigned annually to nursing staff to reinforce education, and clinical educators could hold more intensive offerings (including face-to-face instruction, role-play, facilitated discussion, etc.). The clinical educators and nursing leadership at the project site could reassign future follow-up modules to track changes and improvements of knowledge and confidence levels. In order to increase participation in follow-up modules, the director of clinical education could offer additional incentives or Continuing Education credits to nursing staff.

CNAs participating in this project expressed lower confidence levels regarding knowing where to locate the site's policy and procedures regarding residents expressing suicidal ideation, holding a conversation with a resident making a suicidal comment, and knowing what to say when responding to a resident who is making a suicidal comment. In future educational offerings, clinical educators or RNs could help CNAs practice locating suicidal ideation policies and procedures, as well as role-playing conversations with residents expressing suicidal ideation.

Clinical educators at the site could help develop and distribute related resources, such as printed materials, to staff in educational newsletters. Since I piloted the educational materials and measurement scales for this project, future researchers could test the educational module in the future for validity. Nursing leadership at the site could formalize care plans for nursing staff regarding responding to worsening depressive symptoms and suicidal ideation among residents. Educational offerings in the future could target family caregivers and friends in order to help promote emotional health of older adults in the nursing home setting.

### **Conclusion**

The implications of this DNP project included improving the quality and experience of care of residents expressing suicidal ideation at the site by addressing gaps in learning for RNs, LPNs, and CNAs regarding recognizing and responding to suicidal ideation. Due to the significant distress and negative impact upon quality of life associated with suicidal ideation among residents in nursing homes, this project was important in helping nursing staff feel more confident and knowledgeable about addressing this issue. Through increasing nursing staff's recognition of depression symptoms and suicidal ideation, the educational module in this project could contribute to improved MDS scores for depressive symptoms on Medicare's Nursing Home Compare website. With the success of this implementation, clinical educators could include the module in future annual clinical education required for nursing staff at the site or offer more intensive educational experiences regarding this topic. Learning might require reinforcement in the future, and points that participants struggled with during the initial module might require clarification (written on a lower reading level, explained in terms that are easier to understand, or presented in an alternative educational modality). More thorough needs assessments, more structured interviews with staff, and additional, more intensive educational

offerings, in the future could strengthen the implications of this project and inform clinical educators and nursing leadership at the site regarding additional concerns with addressing suicidal ideation. As a psychiatric-mental health nurse practitioner with a DNP degree, I could make this module specific to other nursing homes and implement this intervention at those nursing homes. I could lead efforts to improve quality of care for residents expressing suicidal ideation in nursing homes by improving implementation of suicidal ideation protocols with educational modules like the one developed and utilized for this project. With increased knowledge and confidence responding to and recognizing suicidal ideation in nursing homes, nursing staff can utilize positive relationships with residents and effective communication skills to help reduce distress and negative outcomes related to suicidal ideation.



## APPENDIX A: EVALUATION CONFIDENCE LEVEL QUESTIONS

Please rate the following items from 1 to 4 according to the following scale:

- 1—Disagree
- 2—Slightly agree
- 3—Mostly agree
- 4—Completely agree

1. I know what to say when responding to a resident making a suicidal comment. \_\_\_
2. I feel confident holding a conversation with a resident about a suicidal comment. \_\_\_
3. I am familiar with this nursing home's process and policy regarding residents expressing suicidal ideation. \_\_\_
4. I know where to locate this nursing home's process and policy regarding residents expressing suicidal ideation. \_\_\_
5. I understand my role in responding to a resident expressing suicidal ideation. \_\_\_
6. I understand what constitutes a suicidal comment and what comments should be reported to supervisors (Registered Nurse or physician). \_\_\_
7. I understand what constitutes "suicidal behavior" among residents. \_\_\_
8. I understand what nurses and nursing assistants can do to prevent suicide risk among residents. \_\_\_
9. I feel confident with recognizing signs of depression among residents. \_\_\_
10. I feel confident recognizing the warning signs of suicide among residents. \_\_\_

## APPENDIX B: PRE-TEST AND POST-TEST KNOWLEDGE LEVEL QUESTIONS

1. Statements such as “I have no reason to go on” and “I can’t find any meaning in my life” are normal statements made by residents and are not warning signs of suicide. FALSE
2. Talking with a resident about his/her suicidal comment **increases** the chance that the resident will attempt suicide. FALSE
3. You should *not* appear over-emotional when talking with a resident about a suicidal comment. TRUE
4. When talking with a resident about suicide, you should use both a matter-of-fact and friendly tone. TRUE
5. An example of a good way to talk to residents about suicide is: “I know you’re probably not, but I wanted to check—are you thinking about suicide?”. FALSE
6. An example of a good way to talk to residents about suicide is: “Tell me more about how you feel”. TRUE
7. An example of a good question you can ask a resident about suicide is: “Are you thinking about ending your life?”. TRUE
8. Staying with the resident and calling for help are the priorities when responding to a suicide attempt. TRUE
9. Depression is a normal part of aging. FALSE
10. Depression is a risk factor for suicide among residents. TRUE

## APPENDIX C: TRAINING EFFECTIVENESS DATA

### Training Effectiveness—RNs and LPNs (n=10)

Participants	Pre-Test	Post-Test
#1	80%	100%
#2	90%	90%
#3	100%	100%
#4	90%	100%
#5	100%	100%
#6	90%	100%
#7	90%	80%
#8	90%	100%
#9	90%	100%
#10	90%	100%
	Mean: 91% Standard deviation: 0.057	Mean: 97% Standard deviation: 0.067

### Training Effectiveness—CNAs (n=16)

Participants	Pre-Test	Post-Test
#1	80%	90%
#2	90%	100%
#3	70%	100%
#4	90%	100%
#5	70%	90%
#6	90%	100%
#7	70%	100%
#8	60%	90%
#9	80%	100%
#10	80%	80%
#11	90%	90%
#12	90%	100%
#13	80%	80%
#14	90%	90%
#15	80%	100%
#16	80%	80%
	Mean: 81% Standard deviation: 0.092	Mean: 93% Standard deviation: 0.079

## APPENDIX D: EVALUATION SURVEY DATA

### Evaluation Survey—RNs and LPNs (n=10)

<b>Evaluation Item</b>	<b>Disagree</b>	<b>Slightly agree</b>	<b>Mostly agree</b>	<b>Completely agree</b>
#1: I know what to say when responding to a resident who is making a suicidal comment	0%	0%	30%	70%
#2: I feel confident holding a conversation with a resident about a suicidal comment	0%	0%	30%	70%
#3: I am familiar with this nursing home's process and policy regarding residents expressing suicidal ideation	0%	0%	10%	90%
#4: I understand my role in responding to a resident expressing suicidal ideation	0%	0%	10%	90%
#5: I understand what constitutes a suicidal comment and what comments should be reported to a supervisor. (Registered Nurse or Physician)	0%	0%	20%	80%
#6: I understand what nurses and nursing assistants can do to prevent suicide risk among residents	0%	0%	20%	80%
#7: I feel confident with recognizing signs of depression among residents	0%	0%	20%	80%
#8: I feel confident recognizing the warning signs of suicide among residents	0%	0%	20%	80%
#9: I know where to locate this nursing home's process and policy regarding residents expressing suicidal ideation	0%	0%	10%	90%

**Evaluation Survey—CNAs (n=16)**

<b>Evaluation Item</b>	<b>Disagree</b>	<b>Slightly agree</b>	<b>Mostly agree</b>	<b>Completely agree</b>
#1: I know what to say when responding to a resident who is making a suicidal comment	0%	31.25%	43.75%	25%
#2: I feel confident holding a conversation with a resident about a suicidal comment	12.5%	25%	50%	12.5%
#3: I am familiar with this nursing home's process and policy regarding residents expressing suicidal ideation	12.5%	12.5%	43.75%	31.25%
#4: I understand my role in responding to a resident expressing suicidal ideation	6.25%	0%	31.25%	62.5%
#5: I understand what constitutes a suicidal comment and what comments should be reported to a supervisor. (Registered Nurse or Physician)	6.25%	0%	18.75%	75%
#6: I understand what nurses and nursing assistants can do to prevent suicide risk among residents	0%	6.25%	50%	43.75%
#7: I feel confident with recognizing signs of depression among residents	0%	0%	50%	50%
#8: I feel confident recognizing the warning signs of suicide among residents	0%	12.5%	43.75%	43.75%
#9: I know where to locate this nursing home's process and policy regarding residents expressing suicidal ideation	25%	31.25%	18.75%	25%

## APPENDIX E: TEST ITEM ANALYSIS

**Pre-test and Post-test Item Analysis—CNAs, RNs, and LPNs  
(n=28 times taken, tests taken twice by 2 participants)**

<b>Test Item (True/False)</b>	<b>Pre-Test % Correct</b>	<b>Post-Test % Correct</b>
#1: Talking with a resident about his/her suicidal comment INCREASES the chance that the resident will attempt suicide.	92.9%	100%
#2: You should NOT appear over-emotional when talking with a resident about a suicidal comment.	85.7%	100%
#3: Statements such as "I have no reason to go on" and "I can't find any meaning my life" are normal statements made by residents and are NOT warning signs of suicide.	96.4%	82.1%
#4: When talking with a resident about suicide, you should use both a matter-of-fact and friendly tone.	92.9%	100%
#5: An example of a good way to talk to residents about suicide is: "I know you're probably not, but I wanted to check--are you thinking about suicide?".	67.9%	85.7%
#6: An example of a good way to talk to residents about suicide is: "Tell me more about how you feel."	100%	100%
#7: An example of a good question you can ask a resident about suicide is: "Are you thinking about ending your life?".	39.3%	82.1%
#8: Staying with the resident and calling for help are the priorities when responding to a suicide attempt.	100%	100%
#9: Depression is a normal part of aging.	57.1%	85.7%
#10: Depression is a risk factor for suicide among nursing home residents.	92.9%	100%

## APPENDIX F: 30-DAY FOLLOW-UP TEST AND EVALUATION

### Follow-Up Test Item Analysis—CNAs, RNs, and LPNs (n=7)

Test Item (True/False)	Post-Test % Correct	Follow-Up % Correct
#1: Talking with a resident about his/her suicidal comment INCREASES the chance that the resident will attempt suicide.	100%	85.7%
#2: You should NOT appear over-emotional when talking with a resident about a suicidal comment.	100%	85.7%
#3: Statements such as "I have no reason to go on" and "I can't find any meaning my life" are normal statements made by residents and are NOT warning signs of suicide.	82.1%	100%
#4: When talking with a resident about suicide, you should use both a matter-of-fact and friendly tone.	100%	100%
#5: An example of a good way to talk to residents about suicide is: "I know you're probably not, but I wanted to check--are you thinking about suicide?".	85.7%	85.7%
#6: An example of a good way to talk to residents about suicide is: "Tell me more about how you feel."	100%	100%
#7: An example of a good question you can ask a resident about suicide is: "Are you thinking about ending your life?".	82.1%	28.6%
#8: Staying with the resident and calling for help are the priorities when responding to a suicide attempt.	100%	100%
#9: Depression is a normal part of aging.	85.7%	71.4%
#10: Depression is a risk factor for suicide among nursing home residents.	100%	85.7%

**30-Day Follow-Up Evaluation Item Analysis—CNAs, RNs, and LPNs  
(n=7; one participant did not respond to some evaluation items)**

<b>Evaluation Item</b>	<b>Disagree</b>	<b>Slightly agree</b>	<b>Mostly agree</b>	<b>Completely agree</b>
#1: I know what to say when responding to a resident who is making a suicidal comment	0%	16.67%	33.33%	50%
#2: I feel confident holding a conversation with a resident about a suicidal comment	0%	28.57%	28.57%	42.86%
#3: I am familiar with this nursing home's process and policy regarding residents expressing suicidal ideation	0%	33.33%	33.33%	33.33%
#4: I understand my role in responding to a resident expressing suicidal ideation	0%	28.57%	14.29%	57.14%
#5: I understand what constitutes a suicidal comment and what comments should be reported to a supervisor. (Registered Nurse or Physician)	0%	28.57%	28.57%	42.86%
#6: I understand what nurses and nursing assistants can do to prevent suicide risk among residents	0%	16.67%	50%	33.33%
#7: I feel confident with recognizing signs of depression among residents	0%	14.29%	57.14%	28.57%
#8: I feel confident recognizing the warning signs of suicide among residents	0%	14.29%	71.43%	14.29%
#9: I know where to locate this nursing home's process and policy regarding residents expressing suicidal ideation	16.67%	0%	16.67%	66.67%



## APPENDIX G: EDUCATIONAL MODULE CONTENT

Slide 1: How to Recognize and Respond to Suicidal Ideation at [This Nursing Home]

- Rebecca Kabatchnick
- UNC-Chapel Hill School of Nursing
- November 9, 2016

Slide 2: What will we learn about?

- The problem of suicide risk in nursing homes
- Warning signs for suicide
- Staff roles in addressing suicidal ideation
- Ethical and day-to-day practice concerns
- This nursing home’s policies for suicidal ideation

Slide 3: Suicide among older adults in the U.S.

- 9,000 older adults completed suicide in 2011
- White men have highest risk
- Older adults die more often than young adults in suicide attempts
- Older adults often talk about suicide before they act

Slide 4: Risk factors for suicide

- Relocating to nursing home
- Depression, substance abuse, and other mental illnesses
- Illness, disability, or pain
- Cognitive impairment
- Family history of suicide
- Personal history of suicidal behavior
- Feeling empty and alone

Slide 5: Types of suicidal behavior

- Hanging
- Cutting that leads to bleeding
- Hoarding and overdosing medication
- Refusing to eat and drink
- If you see this, tell someone.

Slide 6: Depression in nursing homes

- Depression is:
- Associated with suicidal behavior
- Often undertreated in nursing homes
- Often overlooked by clinicians in nursing homes

Slide 7: What is “passive” suicidal ideation?

- Having suicidal thoughts, but not acting on them
- Refusing to accept food, drinks, and medicine
- Saying things like: “I can’t go on” or “I’d be better off dead”

Slide 8: Passive suicidal statement examples

- I'm going to kill myself.
- I'm going to end it all.
- I just want to die.
- Death would solve all my problems.
- I wish I were dead.
- If you hear this, tell someone.

Slide 9: What is “active” suicidal ideation?

- Serious desire and plan to complete suicide
- Saying a specific plan for killing self
- I'm going to overdose on my pills tonight
- I'm planning to hang myself when I get the chance
- Immediate risk of completing suicide

Slide 10: Other warning signs of suicide

- The behavior or mood change is **sudden or drastic**
- Hopelessness
- Rage, uncontrolled anger, seeking revenge
- Acting reckless or engaging in risky activities
- Feeling trapped - like there's no way out
- Withdrawing from friends, family, or society

Slide 11: How can we help?

Slide 12: Help residents feel comfortable

- Help residents visit day room in evening
- Help residents move, transfer, and exercise body
- Comfort patients who are lonely and in pain
- Communicate pain levels to RNs or MDs
- Help residents feel at home
- Welcome visitors and family pictures

Slide 13: Help residents find meaning

- Help residents feel successful in working towards their goals
- Help residents participate in social activities
- Allow residents to keep some independence
- Have conversations with residents about what brings joy or meaning to their lives

Slide 14: Help residents form relationships

- Promote Relationships:
- Family and friends—encourage visitors if possible
- Other residents—encourage participation in social activities
- Staff—therapeutic communication and rapport
- The community—religious affiliations, senior activities

- Remember: Your relationship with the resident is your special way to identify changes in behavior or the seriousness of risk for attempting/completing suicide

Slide 15: Talking with residents who make suicidal comments

- Talking will NOT cause a resident to attempt suicide
- Talking may help you understand that a resident is at immediate risk of suicide
- Talking may help you understand that a resident is not suicidal, but needs some help
- Talking helps residents learn that they matter to you

Slide 16: GOOD questions to ask

- When a resident makes a suicidal comment, good questions to ask them include:
  - “How are you doing?”
  - “Tell me more about how you feel.”
  - “Are you thinking about hurting yourself?”
  - “Do you have thoughts about suicide?”
  - “Are you thinking about ending your life?”
  - “Have you thought about methods you might use to take your life?”

Slide 17: AVOID these responses

- When a resident makes a suicidal comment, avoid these kinds of questions:
  - “Things aren’t so bad.”
  - “Our problems are never as serious as we think they are.”
  - “Don’t talk like that. It’s foolish.”
  - “I know you’re probably not, but I wanted to check—are you thinking about suicide?”
  - “You’re not thinking about suicide are you?”

Slide 18: Ethical concerns

- What if we are conflicted about intervening with a patient who expresses readiness to die?
- Remember that thoughts of the meaning of life and death are expected among older adults
- Remember that depression and suicidal thoughts are treatable and NOT normal
- Recognize symptoms of depression
- Make a referral for depression evaluation and treatment

Slide 19: [This nursing home’s] suicide risk policy

- Located in the policy and procedure handbook
- Current suicide risk policy (effective January 28, 2014)
  - 1. If a resident mentions suicidal statements, staff members are obligated to report this to a Nursing Supervisor
  - 2. The Nursing Supervisor will complete a Suicidality Screener to determine suicidal risk.

Slide 20: [This nursing home’s] suicide risk policy

- 3. If a resident is determined to be at **high** risk on the screener, the resident’s **physician** must be notified immediately.
  - a)The resident may be **transported** to an acute care hospital for further evaluation and treatment.
  - b)The resident’s **healthcare power of attorney** should also be notified of physician recommendation.

—4. If a resident is **not** determined to be at high risk, the **Suicidality Screener** will be sent to the resident's physician.

a)The **Chaplain and Social Worker** should be notified by the RN supervisor for appropriate follow up.

Slide 21: What do we do?

If you hear a comment that you believe may be suicidal:

- Stay with the resident or immediately seek out staff member who has strong rapport/good relationship with patient
- Speak with the resident about his or her plans to carry out their thoughts of suicide
- Use a friendly but matter-of-fact tone to ask more about what the resident is feeling
- Call for help from room or use call bell if you believe patient has attempted suicide or plans to do so when alone

Slide 22: What are our roles?

- CNA's: Notify RN supervisor for further assessment
- RN's and LPN's: When possible, and when resident's immediate safety is ensured, notify the RN supervisor to complete Suicidality Screener to determine risk
- Notify physician if resident is determined to be a "high risk" on the screener
- Resident may need to be transferred to Emergency Department

Slide 23: Remember:

- Take action if you notice warning signs
- Depression and suicide are NOT a normal part of aging
- There are things we can do every day to help the residents maintain safety and meaning

## **APPENDIX H: MDS PART D—MOOD ASSESSMENT QUESTIONS**

Over the last two weeks, have you been bothered by any of the following problems?

1. Little interest or pleasure in doing things
2. Feeling down, depressed, or hopeless
3. Trouble falling or staying asleep, or sleeping too much
4. Feeling tired or having little energy
5. Poor appetite or overeating
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down
7. Trouble concentrating on things, such as reading the newspaper or watching television
8. Moving or speaking so slowly that other people could have noticed? Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual
9. Thoughts that you would be better off dead or of hurting yourself in some way

## **APPENDIX I: SITE'S CURRENT SUICIDAL IDEATION PROTOCOL**

Effective January 28, 2014

1. If a resident mentions suicidal statements, staff members are obligated to report this to a Nursing Supervisor.
2. The Nursing Supervisor will complete a Suicidality Screener to determine suicidal risk.
3. If a resident is determined to be at high risk on the screener, the resident's physician must be notified immediately. The resident may be transported to an acute care hospital for further evaluation and treatment. The resident's healthcare power of attorney should also be notified of physician recommendation.
4. If a resident is not determined to be at high risk, the Suicidality Screener will be sent to the resident's physician. The Chaplain and Social Worker should be notified by the RN supervisor for appropriate follow up.

## REFERENCES

- Anderson, R., Buckwalter, K., Buchanan, R., Maas, M., & Imhof, S. (2003). Validity and reliability of the Minimum Data Set Depression Rating Scale (MDSDRS) for older adults in nursing homes. *Age & Ageing*, 32(4), 435-438.
- Ayalon, L., Mackin, S., Areal, P., Chen, H., & Herr, E. (2007). The role of cognitive functioning and distress in suicidal ideation in older adults. *Journal Of The American Geriatrics Society*, 55(7), 1090-1094. doi:10.1111/j.1532-5415.2007.01237.x
- Bastable, S. (2014). *Nurse as educator: Principles of teaching and learning for nursing practice*. 4<sup>th</sup> Ed. Burlington, MA: Jones and Bartlett.
- Blair Irvine, A., Billow, M. B., Eberhage, M. G., Seeley, J. R., McMahon, E., & Bourgeois, M. (2012). Mental Illness Training for Licensed Staff in Long-Term Care. *Issues In Mental Health Nursing*, 33(3), 181-194 14p. doi:10.3109/01612840.2011.639482
- Centers for Medicare and Medicaid Services. (2016, October). Long-Term Care Facility Resident Assessment Instrument 3.0 User's Manual. Retrieved February 20, 2017, from Long-Term Care Facility Resident Assessment Instrument 3.0 User's Manual
- Cero, I., Zuromski, K. L., Witte, T. K., Ribeiro, J. D., & Joiner, T. E. (2015). Perceived burdensomeness, thwarted belongingness, and suicide ideation: Re-examination of the interpersonal-psychological theory in two samples. *Psychiatry Research*, 228(3), 544-550. doi:<http://dx.doi.org.libproxy.lib.unc.edu/10.1016/j.psychres.2015.05.055>
- Conwell, Y., & Brent, D. (1995). Suicide and aging. I: Patterns of psychiatric diagnosis. *International Psychogeriatrics*, 149-164 16p.
- Cukrowicz, K. C., Cheavens, J. S., Van Orden, K., Ragain, R. M., & Cook, R. L. (2011). Perceived burdensomeness and suicide ideation in older adults. *Psychology & Aging*, 26(2), 331-338. doi:10.1037/a0021836
- Cukrowicz, K. C., Jahn, D. R., Graham, R. D., Poindexter, E. K., & Williams, R. B. (2013). Suicide risk in older adults: Evaluating models of risk and predicting excess zeros in a primary care sample. *Journal of Abnormal Psychology*, 122(4), 1021-1030. doi:10.1037/a0034953
- D'Antonio, P., Beeber, L., Sills, G., & Naegle, M. (2014). The future in the past: Hildegard Peplau and interpersonal relations in nursing. *Nursing Inquiry*, 21(4), 311-317 7p. doi:10.1111/nin.12056
- Fitzgerald, K., & Keyes, K. (2014). Instructional Methods and Settings. In S. B. Bastable (Ed.). *Nurse as educator-principles of teaching and learning for nursing practice* (4th Ed., pp. 469-515). Burlington, MA: Jones and Bartlett.

- Greenlee, K., & Hyde, P., S. (2014). Suicide and depression in older adults: Greater awareness can prevent tragedy. *Generations*, 38(3), 23-26. Retrieved from [https://auth-lib-unc.edu.libproxy.lib.unc.edu/ezproxy\\_auth.php?url=http://search.ebscohost.com.libproxy.lib.unc.edu/login.aspx?direct=true&db=rzh&AN=2012833782&site=ehost-live&scope=site](https://auth-lib-unc.edu.libproxy.lib.unc.edu/ezproxy_auth.php?url=http://search.ebscohost.com.libproxy.lib.unc.edu/login.aspx?direct=true&db=rzh&AN=2012833782&site=ehost-live&scope=site)
- Hagan, C., R., Podlogar, M., C., Chu, C., & Joiner, T., E. (2015). Testing the interpersonal theory of suicide: The moderating role of hopelessness. *International Journal of Cognitive Therapy*, 8(2), 99-113. doi:10.1521/ijct.2015.8.2.99
- Haugan, G., Innstrand, S. T., & Moksnes, U. K. (2013). The effect of nurse-patient interaction on anxiety and depression in cognitively intact nursing home patients. *Journal Of Clinical Nursing*, 22(15/16), 2192-2205. doi:10.1111/jocn.12072
- Heisel, M. J., Flett, G. L., & Besser, A. (2002). Cognitive functioning and geriatric suicide ideation: Testing a mediational model. *The American Journal of Geriatric Psychiatry*, 10(4), 428-36. Retrieved from <http://libproxy.lib.unc.edu/login?url=http://search.proquest.com/docview/195986190?accountid=14244>
- Heiser, D. (2004). Depression identification in the long-term care setting: the GDS vs. the MDS. *Clinical Gerontologist*, 27(4), 3-18.
- Jahn, D. R., Poindexter, E. K., & Cukrowicz, K. C. (2015). Personality disorder traits, risk factors, and suicide ideation among older adults. *International Psychogeriatrics*, 27(11), 1785-1792. doi:10.1017/S1041610215000174
- Jahn, D. R., Van Orden, K. A., & Cukrowicz, K. C. (2013). Perceived Burdensomeness in Older Adults and Perceptions of Burden on Spouses and Children. *Clinical Gerontologist*, 36(5), 451-459. doi:10.1080/07317115.2013.816817
- Joiner, T. (2005). *Why people die by suicide*. Cambridge, Mass.: Harvard University Press.
- Kjølseth, I., & Ekeberg, O. (2012). When elderly people give warning of suicide. *International Psychogeriatrics*, 24(9), 1393-1401 9p. doi:10.1017/S1041610212000312
- Knowles, M.S. (1970). *The modern practice of adult education: Androgogy versus pedagogy*. New York: New York Association Press.
- Kramer, D., Allgaier, A., Fejtikova, S., Mergl, R., & Hegerl, U. (2009). Depression in nursing homes: prevalence, recognition, and treatment. *International Journal Of Psychiatry In Medicine*, 39(4), 345-358. doi:10.2190/PM.39.4.a
- Magnussen, L. (2008). Applying the principles of significant learning in the e-learning environment. *Journal Of Nursing Education*, 47(2), 82-86 5p. doi:10.3928/01484834-20080201-03



- Malfent, D., Wondrak, T., Kapusta, N. D., & Sonneck, G. (2010). Suicidal ideation and its correlates among elderly in residential care homes. *International Journal of Geriatric Psychiatry, 25*(8), 843-849 7p. doi:10.1002/gps.2426
- Medicare. (2016). Medicare Nursing Home Profile. Retrieved March 07, 2016, from <https://www.medicare.gov/nursinghomecompare/profile.html#profTab=3>
- Meeks, S., & Looney, S. W. (2011). Depressed nursing home residents' activity participation and affect as a function of staff engagement. *Behavior Therapy, 42*(1), 22-29. doi:10.1016/j.beth.2010.01.004
- Mezuk, B., Lohman, M., Leslie, M., & Powell, V. (2015). Suicide risk in nursing homes and assisted living facilities 2003-2011. *American Journal of Public Health, 105*(7), 1495-1502 8p. doi:10.2105/AJPH.2015.302573
- Mezuk, B., Prescott, M. R., Tardiff, K., Vlahov, D., & Galea, S. (2008). Suicide in older adults in long-term care: 1990 to 2005. *Journal of the American Geriatrics Society, 56*(11), 2107-2111 5p. doi:10.1111/j.1532-5415.2008.01990.x
- Mezuk, B., Rock, A., Lohman, M. C., & Choi, M. (2014). Suicide risk in long-term care facilities: A systematic review. *International Journal of Geriatric Psychiatry, 29*(12), 1198-1211 14p. doi:10.1002/gps.4142
- Moran, K. (2014). Developing the Scholarly Project. In *The Doctor of Nursing Practice Scholarly Project: A Framework for Success* (pp. 128-130). Burlington, MA: Jones & Bartlett Learning.
- Muramatsu, R. S., & Goebert, D. (2011). Psychiatric services: experience, perceptions, and needs of nursing facility multidisciplinary leaders. *Journal Of The American Geriatrics Society, 59*(1), 120-125 6p. doi:10.1111/j.1532-5415.2010.03205.x
- Murphy, B. J., Bugeja, L., Pilgrim, J., & Ibrahim, J. E. (2015). Completed suicide among nursing home residents: A systematic review. *International Journal of Geriatric Psychiatry, 30*(8), 802-814. doi:10.1002/gps.4299
- Nelson, S. (2015). Theories Focused On Interpersonal Relationships. In *Philosophies and Theories for Advanced Nursing Practice* (2nd ed.). Burlington, MA: Jones & Bartlett Learning.
- Nursing Home Stakeholder Interview [Personal interview]. (2016, April 12).
- O'Riley, A., Nadorff, M. R., Conwell, Y., & Edelstein, B. (2013). Challenges associated with managing suicide risk in long-term care facilities. *Annals of Long Term Care, 21*(6), 28-34 7p. Retrieved from [https://auth-lib-unc.edu.libproxy.lib.unc.edu/ezproxy\\_auth.php?url=http://search.ebscohost.com.libproxy.lib.unc.edu/login.aspx?direct=true&db=rzh&AN=107954227&site=ehost-live&scope=site](https://auth-lib-unc.edu.libproxy.lib.unc.edu/ezproxy_auth.php?url=http://search.ebscohost.com.libproxy.lib.unc.edu/login.aspx?direct=true&db=rzh&AN=107954227&site=ehost-live&scope=site)

- Piven, M., Ammarell, N., Bailey, D., Corazzini, K., Colón-Emeric, C., Lekan-Rutledge, D., & ... Anderson, R. (2006). MDS coordinator relationships and nursing home care processes. *Western Journal Of Nursing Research*, 28(3), 294-309.
- Piven, M., Anderson, R., Colón-Emeric, C., & Sandelowski, M. (2008). Certified nursing assistants' explanatory models of nursing home resident depression. *Western Journal Of Nursing Research*, 30(6), 653-672.
- Promoting Emotional Health and Preventing Suicide. (2010, June). Retrieved July 01, 2016, from <http://store.samhsa.gov/product/Promoting-Emotional-Health-and-Preventing-Suicide/SMA10-4515>
- Reiss, N. S., & Tishler, C. L. (2008). Suicidality in nursing home residents: Part I. prevalence, risk factors, methods, assessment, and management. *Professional Psychology: Research and Practice*, 39(3), 264-270. doi:10.1037/0735-7028.39.3.264
- Reiss, N. S., & Tishler, C. L. (2008). Suicidality in nursing home residents: Part II. special issues. *Professional Psychology: Research and Practice*, 39(3), 271-275. doi:10.1037/0735-7028.39.3.271
- Russell, S. (2006). An overview of adult-learning processes. *Urologic Nursing*, 26(5), 349-370 6p.
- Scocco, P., Fantoni, G., Rapattoni, M., de Girolamo, G., & Pavan, L. (2009). Death ideas, suicidal thoughts, and plans among nursing home residents. *Journal of Geriatric Psychiatry and Neurology*, 22(2), 141-148. doi:10.1177/089198870933293
- Simning, A., & Simons, K. V. (2017). Treatment of depression in nursing home residents without significant cognitive impairment: a systematic review. *International Psychogeriatrics*, 29(2), 209-226. doi:10.1017/S1041610216001733
- Taylor, M. J., McNicholas, C., Nicolay, C., Darzi, A., Bell, D., & Reed, J. E. (2014). Systematic review of the application of the plan--do--study--act method to improve quality in healthcare. *BMJ Quality & Safety*, 23(4), 290-298 9p. doi:10.1136/bmjqs-2013-001862
- Thomas, J. E., O'Connell, B., & Gaskin, C. J. (2013). Residents' perceptions and experiences of social interaction and participation in leisure activities in residential aged care. *Contemporary Nurse: A Journal For The Australian Nursing Profession*, 45(2), 244-254. doi:10.5172/conu.2013.45.2.244
- U.S. Department of Health and Human Services (DHHS). (2012). *National strategy for suicide prevention: Goals and objectives for action: A report of the U.S. Surgeon General and the National Action Alliance for Suicide Prevention*. Washington, DC: U.S. Dept. of Health and Human Services, Substance Abuse Mental Health Services Administration,

Center for Mental Health Services, Division of Prevention, Traumatic Stress and Special Programs, Suicide Prevention Branch.

- Van Orden, K. A., Bamonti, P., M., King, D., A., & Duberstein, P., R. (2012). Does perceived burdensomeness erode meaning in life among older adults? *Aging & Mental Health*, *16*(7), 855-860. doi:10.1080/13607863.2012.657156
- Van Orden, K. A., Simning, A., Conwell, Y., Skoog, I., & Waern, M. (2013). Characteristics and comorbid symptoms of older adults reporting death ideation. *American Journal Of Geriatric Psychiatry*, *21*(8), 803-810. doi:10.1016/j.jagp.2013.01.015
- Van Orden, K. A., Talbot, N., & King, D. (2012). Using the interpersonal theory of suicide to inform interpersonal psychotherapy with a suicidal older adult. *Clinical Case Studies*, *11*(5), 333-347. doi:10.1177/1534650112457710
- Van Orden, K. A., Wiktorsson, S., Duberstein, P., Berg, A., Ingeborg, M., & Mellqvist, M. (2015). Reasons for attempted suicide in later life. *American Journal of Geriatric Psychiatry*, *23*(5), 536-544. doi:10.1016/j.jagp.2014.07.003
- Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., & Joiner, T. E. J. (2010). The interpersonal theory of suicide. *Psychological Review*, *117*(2), 575-600. doi:10.1037/a0018697
- Walker, B., Harrington, S., & Cole, C. (2006). The usefulness of computer-based instruction in providing educational opportunities for nursing staff. *Journal For Nurses In Staff Development*, *22*(3), 144-149.
- Walker, B. L., & Osgood, N. J. (2001). Preventing Suicide and Depression: A Training Program for Long-Term Care Staff. *OMEGA - Journal of Death and Dying*, *42*(1), 55-69. doi:10.2190/73tm-4x4w-rg2p-yhew
- Zivin, K., Wharton, T., & Rostant, O. (2013). The Economic, Public Health, and Caregiver Burden of Late-life Depression. *Psychiatric Clinics Of North America*, *36*(4), 631-649. doi:10.1016/j.psc.2013.08.008