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Awareness Matters: Improving Healthcare Workers' Self-Efficacy, Knowledge, Skills and Attitudes Related to Mental Illness and Suicide Prevention

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Awareness Matters: Improving Healthcare Workers' Self-Efficacy, Knowledge, Skills and Attitudes related to Mental Illness and Suicide Prevention

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By

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Abstract

Problem Description
Healthcare workers' (HCWs) negative stigmas, poor attitudes, and lack of knowledge impact the care delivered to patients with a mental illness or who may be suffering with suicidal thoughts.

Rationale
Raising HCWs' awareness, knowledge, and skills has been linked to improving the negative stigmas, biases, and attitudes that impede the care required to achieve optimal health outcomes.

Intervention
Participants attended a 90-minute Question, Persuade, Refer (QPR) gatekeeper training, each participant received six bi-weekly emails about mental health issues, suicide prevention, and community resources. A pre/post survey design using the Mental Illness Clinicians' Attitude Scale (MICA-4) and the Mental Health Knowledge Schedule (MAKS) was used to measure changes in stigmas, attitudes, and knowledge.

Results
The initial survey was completed by 99 HCWs and post by 72 (73%), QPR was completed by 73 (74%) participants. Groups were established based on the number of emails answered and QPR attendance. The mean percentage and the mean absolute change were calculated for each group, and a two-tailed *t*-test compared differences between groups. The group who attended QPR and answered 5 or more emails compared to the group who did not attend QPR and answered <5 emails had the most significant improvement showing a *p value* of p=0.01. Pre/post QPR surveys demonstrated 100% (n=73) self-reported their knowledge level about suicide prevention as either low, medium, or high improved after training and no low reports were given in the post survey. Each participant self-reported their knowledge in: 1) how to ask someone about suicide, 2) how to persuade them to get help, and 3) how to refer someone to local resources for immediate assistance.

Conclusion
The project demonstrated a self-reported positive impact on HCWs' knowledge, skills, and attitudes about mental illness and suicide prevention. QPR training and bi-weekly educational emails should be considered as an option when addressing suicide and mental illness. This work sets the foundation for future developments and larger scale implementation for healthcare organizations. The impact of raising HCWs' awareness, knowledge, and skills related to mental illness and suicide prevention may increase the early identification and referrals of patients, friends, family members, and community members, leading to better outcomes for all.

Keywords: mental health, suicide, QPR, gatekeeper training, stigma, healthcare worker, attitudes, spaced learning

Awareness Matters: Improving Healthcare Workers' Self-Efficacy, Knowledge, Skills and Attitudes related to Mental Illness and Suicide Prevention

Healthcare workers (HCWs) are in a key position to recognize and identify patients, friends, and family members who may be at risk for, or are experiencing suicidal thoughts. Many factors influence a HCW's ability to assess, identify, and care for patients at risk: inadequate knowledge, lack of skills, negative stigmas, and biases. Patients with a mental illness have an increased risk for suicide; 90% of those who complete suicide have an underlying mental illness (Suicide Prevention Action Network [SPAN], 2016). This project examines changes in knowledge, attitudes, and stigmas in HCWs at two hospitals located in the Inland Northwest region of the United States following several educational interventions. The interventions consisted of an evidence-based gatekeeper training program for suicide prevention along with bi-weekly emails using the Spaced-Learning Model.

Problem Description

Over 60 million Americans are thought to experience mental health issues in a given year and on average *only* 40% of them seek medical care. Stigma and judgmental attitudes by HCWs are the leading reasons for individuals who have a mental illness or are suicidal not seeking care (Corrigan, Druss, & Perlick, 2014; National Alliance on Mental Illness [NAMI], 2017). The Substance Abuse and Mental Health Services Administration (SAMHSA) (2014) reported only 2.5 million of the 21.2 million people struggling with mental illness accessed treatment; stigma was identified as the main reason.

Ahmedani, Stewart, Simon, Lynch, Lu, Waitzfelder … Williams (2015) analyzed healthcare records of 22,400 individuals who made suicide attempts from 2009-2011, examining

the frequency in which healthcare was accessed prior to a patient's suicide attempt. Thirty-eight percent of these patients made some type of healthcare visit within a week before attempting suicide, 64% a month prior, and 95% within a year. Former US Surgeon General David Satcher first addressed stigma as a mental health barrier in 1999 with his report, "Mental Health: A Report of the Surgeon General." The report focused on stigma as a barrier for people seeking treatment as well as the reluctance of states to pay for mental health services. Recent research continues to support these same views and attitudes, demonstrating very little change in more than two decades (Ahmedani et al., 2015; Clark, Usick, Sanderson, Giles-Smith, & Baker, 2014). This scholarly project examines HCWs' lack of knowledge, negative stigmas, and attitudes related to mental illness and suicide prevention.

Problem Background

According to the National Alliance on Mental Illness (NAMI, 2017) one in five adults have a mental illness. In 2017, Idaho had the 5th highest suicide rate, 58% higher than the national average. For Idahoans age 15-34 and for males up to age 44 suicide is the second leading cause of death (SPAN, 2016). While suicide is a significant problem in Idaho, it was also addressed by The Joint Commission (JC) in 2016 with a Sentinel Event report. The report was an analysis of hospitals holding JC accreditation from 2010 to 2014. During this time 1,089 suicides occurred in patients who were seen by medical professionals just 72 hours prior to their death. After extensive investigation the JC found inadequate psychiatric assessments as the common root cause for the suicides ("The Joint Commission," 2016).

HCWs' varying knowledge, skills, stigmas, and biases about mental illness and suicide can lead to inadequate psychiatric assessments and poor identification of patients at risk for suicide. HCWs' ability to assess patients has been linked to their training, education, personal

experiences with family or friends, and professional experiences (Corrigan et al., 2014). Knaak, Mantler, and Szeto (2017) were not able to correlate HCWs' knowledge about mental illness and suicide to their level of stigma or bias. Patients perceiving negative stigmas or attitudes from HCWs often leave treatment or become non-compliant with the recommended treatment plan (Knaak, Mantler, & Szeto, 2017).

Clark, Usick, Sanderson, Giles-Smith, & Baker (2014) reported emergency department (ED) HCW's were doubtful the ED interventions would have any impact on suicidal patients. However, Owens (2002) summarized 90 studies that followed people who had made a lethal suicide attempt that resulted in medical care; approximately 7% (range: 5-11%) of those attempters went on to die by suicide, approximately 23% reattempted nonfatally, and 70% had no further attempts. While this study is from 2002 the implications demonstrate interventions to suicide prevention are quite effective. Bringing awareness to HCWs about the effectiveness of suicide interventions is a key factor in prevention and empowers HCWs with the ability to make a positive impact. It was reported that 77-90% of those who died by suicide had contact with their primary care provider (PCP) in the year prior to their death, and 45-76% within a month (SPAN, 2016). Of all the people who complete suicide, 90% have a diagnosis of clinical depression or some other mental disorder (AFSP, 2016). This reinforces the need for all members of the healthcare team to be knowledgeable, skilled, and aware of the stigmas and biases related to mental illness and suicide. Dr. Quinnett the founder of Question, Persuade, Refer (QPR) shares that hope is an important element in suicide prevention and that being able to restore a person's hope in something is one of the main things that can prevent a suicide; QPR believes that hope is the power tool that can save a life, and everyone has the power to offer hope to another person, if they are willing (QPR, 2011). The ability to form relationships, make

human connections, and become aware of others is a skill needed to identify patients with suicidal risk factors (Bolster, Holliday, & Shaw, 2015).

Lack of Awareness. HCWs' lack of awareness related to mental illness and suicide has been linked to negative patient outcomes (Modgill, Patten, Knaal, Kassam, & Szeto, 2014). Martensson, Jacobsson, and Engstrom's (2014) study on nursing staff attitudes towards mental illness found attitudes improved when nurses were able to see positive interactions and outcomes with patients. Nurses also had better attitudes when they had a close friend or family member with a mental illness. Stull et al. (2013) found HCW's beliefs, stigmas, and attitudes toward mental illness were similar or even more negative than those without a medical background. Given the high rates of mental illness and suicide in the US, it is imperative for HCWs to understand the impact of negative stigmas, biases, and attitudes on people with a mental illness or in a suicidal crisis. Without awareness, change cannot occur.

History has shown us that awareness does matter, one easily recognized example is the pink ribbon for breast cancer awareness. The same is certainly not true for the purple and teal ribbon, representing suicide awareness. Consider this: in 2017, about 41,000 people died from breast cancer, and about 45,000 died by suicide, an often-preventable death (NAMI, 2017). All patients deserve to be treated with dignity and respect; a diagnosis should *never* influence how someone is treated or cared for.

Media influences on mental health perception. A Johns Hopkins Bloomberg School of Public Health study (2016) examined news stories about mental illness from 1994-2014 in which four out of ten news stories mentioned people with mental illness as having violent behaviors, even though less than five percent of violence reported in the US is related to mental illness. News stories mention mental illness as a reason or risk factor for violence 38% of the time, while

only 8% of stories mention most people with a mental illness are never or rarely violent toward others. Work around educating the media on how to report about violence, suicide, and mental illness is work that continues today and must remain a priority so that only facts are reported, and stories do not perpetuate negative stigmas and biases (Johns Hopkins Bloomberg School of Public Health, 2016; Maranzan, 2016).

Implicit and Explicit bias. Implicit bias is involuntary, with little awareness or intentional control over it. Implicit biases are often associations developed deep within the subconscious and influence feelings, attitudes, or beliefs about people based on characteristics such as race, ethnicity, age, illness, and appearance (Blair, Steiner, & Havranek, 2011). Researchers have worked on Project Implicit Mental Health and Project Implicit since 1998, collecting data from numerous online tests hosted by Harvard University ("Project Implicit Mental Health," 2018). The Harvard Project reported words like bad, helpless, and blameworthy were the three most common descriptors of implicit biases related to people with mental illness.

Explicit bias occurs when a person is aware of their thoughts or actions and they are deliberate about them. However, a person may choose to conceal their actions or thoughts to maintain social and/or political correctness (Rosen, 2014). Numerous studies have showcased the contradiction between explicit versus implicit beliefs (FitzGerald & Hurst, 2017; Project Implicit Mental Health, 2018; Smith, Mital, Chekuri, Han, & Sullivan, 2017). The following scenario illustrates implicit and explicit bias:

> Sally and Linda have been eating lunch together the last three years at work; they are case mangers working on separate units. Yesterday Linda told Sally she has been seeing a therapist weekly for the past three months because she has been feeling down to the point it has been affecting her marriage and her sleep. Another case manager asked Sally if she

thought Linda was having a breakdown or might be losing it. Sally replied "no" because she knew it was inappropriate to be biased against people with a mental illness (explicit bias, done with awareness and conscious choice). However, Linda now finds herself not wanting to have lunch with Sally (implicit bias—not conscious as to why). Linda has started making meetings or appointments to avoid having lunch with Sally.

Raising awareness related to implicit bias has been included in police officer training for many years, when the issue gained increased attention as the media started highlighting racial and ethical issues (Devine, Forscher, Austin, & Cox, 2012). The impacts of negative stigmas and biases have been linked to poor patient outcomes. Rosenbaum (2016) discussed the mortality gap found in people with mental illness, Benjamin Malzberg (1932) identified the first gap among patients with a mental illness, as they died 14 to 18 years earlier than patients without a mental illness. In 2006, a US study suggested the gap ranged from 13-30 years (Hayes, Marston, Walter, King, & Osborn, 2017). Medical providers' pessimistic attitudes towards patients with a mental illness were explored and findings suggested these attitudes were a factor in the mortality gap. HCWs' stigmas, biases, and attitudes must be assessed and evaluated to ensure patients are not experiencing negative outcomes related to them.

Stigma. Stigma is described as a mark of disgrace that sets a person apart from others (FitzGerald & Hurst, 2017; Stull, McGrew, Salyers, & Ashburn-Nardo, 2013). Knaak et al. (2017) summarized stigma into three components: 1) ignorance and misinformation, 2) negative attitudes or prejudice, and 3) negative behaviors or discrimination. When patients encounter HCWs that stigmatize or have negative attitudes, they are less likely to seek treatment, return for follow-up treatment, or seek care again (Bolster et al., 2015; Clark, Usick, Sanderson, Giles-Smith, & Baker, 2014). In 2016, NAMI reported among patients with mental illness, 60% of

adults and 50% of youth (ages 8-15) did not receive mental health services, while African Americans and Hispanics utilized mental health services at about half the rate of Caucasians. Stigma was the major influencing factor for individuals not seeking mental health services (NAMI, 2016). HCWs are charged every day to be patient advocates; however, patient advocacy should *never* discriminate based on a diagnosis.

Patients are exposed to HCWs in various settings and each encounter provides the opportunity for a HCW to make a positive impact. When positive encounters occur, patients are more likely to talk openly about mental health issues and other concerns (Bolster et al., 2015; Gras et al., 2015; Smith, Mital, Chekuri, Han, & Sullivan, 2017). Both positive and negative patient experiences have been correlated with HCWs' biases, stigmas, attitudes, and/or lack of knowledge related to mental illnesses (Gras et al., 2015).

Local problem

The Inland Northwest's increased need for mental health treatment has caused the region's hospital behavioral health units to remain full, which often means emergency departments must hold patients for long periods of time until a bed becomes available. According to a Director of Emergency Services, the same sense of urgency for patients who present with chest pain or stroke symptoms is not placed on suicidal patients. Educating nurses, auditing charts, and rounding on behavioral health patients is imperative if a change is going to happen (ED director, personal communication, June 15, 2017). ED staff often fear aggression or bizarre behaviors from patients in mental health crisis, and behavioral patients are often referred as "frequent flyers" meaning they have been seen in the ED many times with the same issue (Clark et al., 2014). ED staff rarely learn about the outcomes for this patient population or hear feedback. This can result in a feeling of "why bother" for many HCWs. EDs are not

unique, as staff on medical floors and behavioral health units report similar feelings (Maranzan, 2016).

Resources. The Kaiser Family Foundation (KFF) reported that Idaho lacks resources for mental health, spending $32.77 per capita on mental health, ranking 49th in the United States. In comparison, Maine spent $345.36 per capita and Montana spent $208.90 per capita. Idaho was designated as suffering a chronic shortage of mental health providers; in 2014 Idaho had 120 psychiatrists, 260 psychologists, and 1,780 therapists and counselors to serve a population of 1.6 million (KFF, 2016). This likely contributes to Idaho having the 5th highest suicide rate, which is 46% higher than the national average (SPAN, 2017).

Available Knowledge

Literature Review

This literature review was based on the PICO question: "Will raising awareness about mental illness stigmas and suicide prevention improve HCWs' self-efficacy, knowledge, skills, and attitudes when caring for this population?" The John Hopkins Nursing Evidence-Based Tools (JHNEBP) (Appendix A and B) were used systematically to appraise the literature. Literature supports that HCWs often have negative attitudes, stigmas, and bias about mental illness, and suicide, calling for further investigation in this area (Bono & Amendola, 2015; Clark et al., 2014; Corrigan et al., 2014).

Search strategy. Key search terms utilized were: mental illness, healthcare workers, stigma, implicit bias, emergency departments, suicide training, and spaced learning. Articles included were peer-reviewed and published between 2008-2017. Articles addressing HCWs' interaction with mental health patients, attitudes, stigmas, biases, and learning needs related to

mental health and suicide were reviewed. Databases searched included: CINAHL, PubMed, ERIC, MedLine, Joanna Briggs Institute, Cochrane Library and PsycINFO.

***Critical appraisal process*.** A critical appraisal of the articles created a systematic method to determine if a change in practice was necessary based on the evidence (Hall & Roussel, 2017). The appraisals (Appendix A and B) included comparisons of methodologies, exploration of the problem, a completed evidence table, and an overview of the limitations, inconsistencies and strengths of the articles.

Synthesis of the Evidence

Level 1 evidence indicated HCWs exhibited the same likelihood to stigmatize mental illness as the general population (Appendix A). Systematic literature reviews and randomized control trials indicated implicit bias *does* influence the treatment and diagnosis of patients. Spaced-learning was tested between two groups of learners, it demonstrated an increase in knowledge retention when compared to a control group. The two most effective approaches for attitude changes included educational interventions and contact interventions although the studies indicated further research is recommended to examine long term effects. The Implicit Association Test (IAT) is the most widely used measure for studying implicit social cognition (FitzGerald & Hurst, 2017). Spaced-learning can be used in a variety of ways with multiple software applications supporting its use (Kothe, Mullan, & Butow, 2012; Smith, Mital, Chekuri, Han, & Sullivan, 2017).

Level III evidence indicated barriers such as, fear of personal safety, unpredictable behaviors, and beliefs that interventions would not be effective. Australia began an anti-stigma campaign in 1995 when the government recognized the stigma faced by those with a mental illness, so a country-wide campaign was launched (Morgan, Reavley, Jorm, & Beatson, 2016).

Australia demonstrated it was possible to lessen the stigma surrounding mental illness and suicide. In 2010 approximately 40% of those with a mental illness reported experiencing some type of stigma related to their mental illness from a healthcare provider. In 2016, the same survey reported a decrease to 12%. Australia's positive effects resulted in a 6% decrease in suicide rates from 1997-2016, and an increase in people seeking mental health treatment (Morgan, Reavley, Jorm, & Beatson, 2016). Many other countries have followed suit; as of 2017 nine countries developed mental health awareness and/or anti-stigma campaigns (Morgan et al., 2016). Other studies also linked educational interventions to improved knowledge and reduced stigma, however, most recommended longitudinal studies to examine long-term impacts.

Level IV articles revealed a lack of HCW education and training and the resulting impact on their ability to assess, evaluate, treat, or refer mental health patients. Development of a mental health referral system was also identified as a needed resource for caregivers. Healthcare providers expressed a desire to help patients with mental illness or those in a suicidal crisis, but were unsure of what to say or do, so they kept their distance and often avoiding making contact (Bolster, Holliday, & Shaw, 2015; Schroeder, 2013). Interventions often included stories of recovery from patients with a mental illness and reports of their positive experiences with healthcare professionals.

The Mental Illness Clinicians Attitude (MICA-4) and the Mental Health Knowledge Schedule (MAKS) are validated survey tools used to assess stigmatizing attitudes related to health, social care, knowledge, and the fear of violent behaviors from someone with a mental illness. The QPR program has been shown to reduce suicide rates and increase referrals when integrated into communities. QPR works to empower people with the knowledge and skills to offer hope to the hopeless and reduce negative stigmas and poor attitudes about mental illness

and suicide. Individuals trained in QPR have demonstrated improved self-efficacy when talking to people about suicide, through QPR's simple and easy to follow guidelines (QPR, 2011).

One Level V article discussed emotional intelligence (EI). Nurses with lower EI levels demonstrated greater negative attitudes towards suicidal and mental health patients. More experienced nurses expressed less negative stigma and more positive attitudes about mentally ill patients. Researchers found a link between EI and how others are perceived based on a person's life experiences (Carmona-Navarro & Pichardo-Martinez, 2012). Interventions focused on improving HCWs' knowledge, skills, and confidence when caring for or interacting with patients suffering from a mental illness or having suicidal thoughts. These interventions correlated with improved screenings and referrals, and decreased stigmas. Organizations choosing educational programs must consider time commitments for the staff, cost, sustainability, and convenience.

In summary, the literature supports educational interventions focusing on improving knowledge and skills that can be translated into changing HCWs' current practice. Organization can share stories of recovery from patients with mental illness, increase exposure and involvement to community organizations that support mental health. This literature review reveals creating change is multifaceted and requires repeated positive exposure to new knowledge. This DNP project utilizes an evidence-based gatekeeper training program and educational emails as a cost effective and time conscious interventions.

Rationale

The Self Efficacy Theory (SET) and the Spaced Learning Model were frameworks and models for the project design.

Theoretical Models

The SET developed by Albert Bandura, and the Spaced Learning Model by Hermann Ebbinghaus were used to gain a better understanding of behaviors and how knowledge was learned and retained (Griffiths, Carron-Arthur, Parsons, & Reid, 2014; Sean & Kang, 2016). The SET explores how a person demonstrates confidence or control over their motivation, behaviors, and social environment, and how behaviors and actions inform a person's judgments and expectations for others (Ungar, Knaak, & Szeto, 2016). The SET has influenced research, education, and clinical practice in many ways and can be applied to HCWs' biases and attitudes toward mental illness.

To examine awareness, Robb and Stone (2016) tested the impact of sharing the results of the Harvard Implicit Bias test with participants. This randomized controlled trial highlighted how behaviors and biases can be changed based on awareness. The independent variable was receiving the Implicit Bias Test results. When the test was repeated within both groups, the experimental group demonstrated a statistically significant change in their scores, while the control group did not.

Spaced Learning is based on the premise that learners do not remember or have long-term learning during the initial time when new information is received. The model is designed to improve retention by giving learners small increments of information over a period of time after the initial knowledge has been received (Blazek, Dantz, Wright, & Fiedorowicz, 2016). The literature does not clearly give a standard frequency or duration for the spaced intervals, it is often based on the amount of information to be reviewed or the time in which re-testing may occur. It was noted by Sean and Kang (2016) that small amounts of information provided over a longer time frame demonstrated greater retention, recall, and less fatigue. Spaced Learning

recognizes that adults learn better when they can draw upon past experiences as a method to support new knowledge (Sean & Kang, 2016).

Logic model role. The Kellogg Logic Model (Appendix D) was created to plan the resources, activities, and outcomes for the project. The model details how each step is linked and builds upon the other.

Specific Aims

The aim of this project was to improve HCWs' mental illness and suicide prevention knowledge, to result in improved attitudes, behaviors, and self-efficacy. The interventions provided evidence-based training that engaged and empowered HCWs with new knowledge and skills to interact with patients suffering from a mental illness or having a suicidal crisis. QPR training included a role-playing session to allow participants time to practice and demonstrate improved self-efficacy. Spaced Learning was implemented with bi-weekly emails focused on giving the participants small amounts of information that challenged common stigmas and biases associated with mental illness and suicide.

Context

Population

The project was conducted in two Inland Northwest hospitals, a community hospital (CH) and a critical access hospital (CAH) (Table 1.0). All participants reported interactions with patients who had a mental illness or who were suicidal and self-categorized themselves as either clinical or non-clinical, job titles were not identified.

Table 1.0 ***Settings and Resources.***

Organization	Size & Location	Employees at Locations	Number of Participants
Community Hospital (CH)	299- bed Inland Northwest community hospital	872 Nurses (both clinical and non-clinical)	85 HCWs

		~375 Other medical personnel ~3,125 total employees	
Critical Access Hospital (CAH)	20- bed Inland Northwest acute critical access hospital with a 28-bed extended care facility	140 Nurses (both clinical and non-clinical) 50 non-clinical employees	14 HCWs

Congruence of project with organizational mission, values, strategies & needs assessment. The CH was a Level II Trauma Center, has a Magnet designation and is accredited by Det Norske Veritas Healthcare, Inc. (DNV) which means, "the Norwegian truth." The mission is to improve health one patient at a time in a friendly and professional culture committed to superior quality and safety (CH, 2016). This mission supports growth and change for all disciplines. The hospital leadership works to ensure delivery of multi-disciplinary care is available to the entire community.

The CAH is a Level IV Trauma Center with an extended care facility (ECF) attached to the main hospital. The ECF has been recognized as one of the top 400 in the US (CAH, 2017). The CAH and the CH often communicate via the interactive video technology to assist in collaboration. The chief nursing officer (CNO), an active member in the Nurse Leaders of Idaho, collaborates with members of the CH care team to bring new knowledge and resources to the organization. The CAH supports the local community with specialists and services including: acute critical care, rehabilitation, transitional care, community outreach, and wellness and education programs.

Evaluating change and readiness for change. Nurse leaders at both hospitals signed a Memorandum of Understanding (MOU) (Appendix E and F). The MOUs expressed their support of this project and its potential impacts for the participating HCWs.

Strengths and weaknesses. The panhandle of Idaho consists of five counties: Benewah, Bonner, Boundary, Kootenai and Shoshone, with a population of 21,755 (Idaho Department of Labor, 2013). Idaho's health care industry currently provides the second largest area of employment and has been growing steadily since 1990 (Idaho Department of Labor, 2013). The PHD has identified mental health awareness and suicide prevention as two top priorities since 2013. Within the panhandle region of Idaho, the Suicide Prevention Action Network (SPAN) and NAMI work to provide information and support for suicide and mental illness. NAMI is the nation's largest grassroots mental health organization, dedicated to building better lives for the millions of Americans affected by mental illness (NAMI, 2017).

Idaho has two state hospitals, State Hospital South in Blackfoot with 90 psychiatric adult beds, and State Hospital North in Orofino is a 55-bed psychiatric hospital that provides treatment for adults in psychiatric crisis (Idaho Department of Health and Welfare, 2016). Throughout the state, hospitals are looking for answers on how to best care for patients with mental illness or those experiencing suicidal crisis (KFF, 2016).

Relevant elements. Neither hospital had education requirements for HCWs focusing on suicide prevention. The hospitals utilize a learning management system (LMS) to deliver on-line modules to staff with much of the required yearly training completed within the LMS. Both hospitals expressed interest in providing additional education related to mental health.

Interventions. Interventions were designed to increase self-efficacy, knowledge and skills about mental illness and suicide prevention, to result in reduced stigmas and biases. The MICA-4 (Appendix G), MAKS (Appendix H), and QPR (Appendix I) surveys were used in a pre/post design. The MICA-4 survey measured attitudes and basic mental health knowledge, the

MAKS survey explored stigmas related to mental illness, and the QPR survey measured knowledge related to suicide (Kassam, Glozier, Leese, Henderson &Thornicroft, 2010).

Surveys and QPR training. Participants completed the MICA-4 and MAKS survey and were given a choice of dates and times to attend one live 90-minute QPR training session. They were informed that completion of the surveys indicated consent to receive six bi-weekly emails.

QPR is an evidence-based gatekeeper training program designed to teach participants three easy steps that can save a life (QPR, 2011). The first step is the "Q" for question, in which participants were taught how to question someone about suicide, then how to "P" persuade them, offering hope to stay alive, get help, and lastly "R" for refer which instructed them about local resources and how to refer someone in crisis. Being aware of available resources available was a key component in the trainings; a list of panhandle resources for all mental health services was given to all participants. Each QPR session allotted 15 minutes for role playing between the participants, which created a safe place to practice newly learned QPR skills. Role play consisted of each participant practicing being a gatekeeper with their partner, followed by the role play the project lead facilitating a short debriefing. The QPR Institute provided a pre-post-survey (Appendix I) with questions related to knowledge, comfort, and confidence about questioning someone who may be suicidal. All participants were asked to complete the survey pre-post training.

Spaced learning implementation. Spaced Learning interventions were used to reinforce QPR training and deliver new information about mental illness and suicide. Each participant received six bi-weekly emails which covered a variety of issues, from reducing lethal means through gun control, suicide facts versus myths, and short video clips about stories of hope and

recovery from patients struggling with a mental illness. Emails were short and designed to take approximately two-four minutes to read and submit a response.

Correlation of Interventions with Theoretical Model

The SET supported the project by allowing HCWs' to explore their thoughts, feelings, and behaviors towards people with mental illness or who are suicidal. Gaining awareness and knowledge about stigmas and bias can affect a person's behaviors towards those affected by mental illness (Corrigan et al., 2014).

The Spaced Learning Model was incorporated through bi-weekly emails to improve knowledge retention and allow participants to review small amounts of information at their convenience. Each email used a different format: videos, true/false, and matching games. The goal was to improve the HCWs' self-efficacy when caring for patients with a mental illness or when addressing suicide.

Logic Model

The Kellogg Logic Model (2004) was used to visually represent the project and describe the elements needed to achieve the planned outcomes (Appendix D).

Resources/Inputs

Resources included a financial component, organizational support, and community connections. Two healthcare facilities and several community agencies were identified for the project implementation (Appendix D).

Activities and Outputs. Activities included learning how each hospital delivered new education, while building relationships with educators, community leaders, and organizational leaders to gain support and interest. Approval to use the MICA-4 (Appendix G), MAKS (Appendix H), and the QPR survey (Appendix I) for pre- post measurements was obtained.

Lastly, MOU agreements were developed and signed (Appendix E and F). The project leader obtained QPR certification to conduct the trainings. Mental health community organizations were invited to attend hospital events to share knowledge and activities.

Outcomes: Short Term. The following five short-term outcomes listed below guided the project, and five long-term outcomes (Appendix D) were developed to be completed over the next one to two years.

1. Evidence-based Mental Health Training consisting of one live classroom session and six weeks of bi-weekly emails was implemented at a CH and a CAH by July 2018.
2. Of the CH and CAH participants who agreed to participate in the Mental Health Training, 75% completed training by September 1, 2018.
3. After completing Mental Health Training by September 1, 2018, the HCWs at the CH and the CAH showed a 10% improvement from pre to post-survey on the MICA-4, MAKS and QPR surveys.
4. After completion of Mental Health Training 60% of the participants completed the qualitative questions related to their experience and gave feedback on the design and value the Mental Health training.
5. Ten percent of the HCWs within the CH attended a mental health community meeting or participated in a community mental health organization event as part of their Clinical Ladder that supports mental health from June, 2018- October, 2018 (Appendix D).

Impact. The three to five-year impact goal is that both hospitals will recognize the value and importance of raising HCWs' suicide awareness and knowledge and implement required

training for staff. The last goal was to improve the presence of HCWs represented in local community organizations that support mental health or suicide prevention.

Timeline

The project timeline (Appendix K) outlines various project stages. Year one was completed by defining a population, intervention, comparison, and outcome (PICO) question. Year two was marked with completion of a Logic Model, timeline, and proposal development (Appendix B and C). The third and final year consisted of implementation, evaluation, and dissemination of the project.

Measures

The Outcome Evaluation Table (Appendix M) details the data collection, instruments, analysis goal, and analytic techniques. Each section is summarized below.

Data Measures. The data measures supported the project goals of improving HCWs' self-efficacy and knowledge related to mental illness and suicide prevention (Appendix L, Outcome#3). The community activities measured HCW involvement in activities that support mental health or suicide prevention (Appendix L, Outcome #4).

***Description of approach*.** The software Research Electronic Data Capture (REDCap), a secure web application, was used for data collection, storage of surveys, bi-weekly emails, and the qualitative questions (Appendix L, Outcome # 1 and #3). REDCap assigned subject identifications to each participant and created an excel spreadsheet with the data (Appendix L, Outcome #2). The QPR pre and post surveys and attendance sheets were collected and collated by the project leader and placed on an excel spreadsheet (Outcome #3).

***Methods used to assess data*.** The REDCap program allowed data to be displayed in excel worksheets for ease in sorting and identifying incomplete or missing data. The project lead

had the assistance of a statistician for help in determining groups and the type of analysis to complete. The qualitative data was categorized by each question and answers were grouped into similar statements or ideas (Table 6.0).

Permissions. Permissions to use the MICA-4, MAKS, and QPR surveys was obtained (Appendix J).

***Project Expenses*.** The expenses were low due to the generous in-kind support from both hospitals. The details of cost are detailed in the Expense Report, the Statement of Operations, and the Three-year Budget Plan. The projected cost minus the in-kind support totals $250.00 in expenses (Appendix P). The Statement of Operations considers the revenues within the organization for which the project effects; nursing administration supported this at both locations. The Three-year Budget Plan (Appendix R) accounted for revenues and expenses and identified the cost of implementation for each year.

Analysis

Data analysis involves inspecting, purging, transforming, and presenting data in a manner that showcases new and/or useful information (Sylvia & Terhaar, 2014). The Outcome Evaluation Table (Appendix M) outlines the qualitative and quantitative data methods.

Outcomes analytic techniques

Development of training (Outcome #1). Training analysis included the quantitative numbers of the participants who participated in the surveys, QPR training, email responses, and qualitative responses.

Implementation of training (Outcome #2). Nominal counts were used to analyze HCW participation, number of answered emails, and QPR attendance.

Completion of training (Outcome #3). Descriptive statistics compared pre and post survey results. The mean percent change and the absolute percent change was calculated for each group. A paired t-test was used to compare pre and post means for selected groups. Pre and post results based on participants' self-reported answers on QPR surveys were compared. Demographic data was presented in an aggregate manner to ensure participants anonymity.

Qualitative feedback (Outcome #4). Data analysis from six qualitative questions (Appendix N) revealed patterns and similar comments from participants about the QPR training, relevance and usefulness of the email information, and evaluation of project.

Community activity (Outcome #5). Nominal counts were used to record community participation activities of the HCWs who attended an organizational meeting or volunteered at an event supporting mental health or suicide prevention.

Ethical Considerations

Prior to each QPR session participants were informed that this training often elicits emotional responses especially if someone close to them has ended their life by suicide. Many varying thoughts exists related to suicide; however, the focus of the training was all about prevention, consideration was given to the fact that training could cause participants to reflect about past experiences and they may need to talk to someone. Participants were made aware of the organizations employee assistance programs (EAP) which provides counseling or therapy services to employees and their families if needed. The EAP contact information was provided during all sessions, through small business cards. HCWs were informed their participation was voluntary, employment status would not be affected, and supervisors would not have access to their results. Surveys and email responses remained secured through REDCap and only the project lead had access. Data was displayed in an aggregate manner to protect participants'

identities and was stored on a password protected hospital system. An exempt Institutional Review Board (IRB) status was obtained prior to project implementation (Appendix O).

Conflicts of Interest. Potential conflicts of interest from the community organizations who shared information were handled by ensuring each organization identified themselves and only used the time to share information about their organization and volunteer opportunities. The project lead also disclosed employment status with the CH.

Biases. Awareness of potential biases assisted with the identification of a process to mitigate and improve the outcomes (Devine et al., 2012; Rosen, 2014). The use of validated surveys minimized the risk of bias by preventing the formation of phrases or questions that would elicit intended responses. The project leads affiliation with the CH was disclosed in recruitment emails and at all QPR trainings. Participants were sent individual emails through REDCap which assigned each email address a code. Lastly, all QPR training sessions used the same format and followed the QPR Institute policies.

Threats to quality. The data was maintained in a secure database with limited access, to protect access to participant information. De-identified data was discussed with a statistician to obtain statistical recommendations (Outcome #3). The QPR survey and the qualitative questions were also reported in an aggregate manner to ensure anonymity of participants. (Outcome #3).

Results

The average age of participants was 42 years, 10 (9%) males, 89 (90%) females. The post survey was completed by 72 (73%) nurses, 63 from the CH and 9 from the CAH (Outcome #2). Surveys with missing data were excluded in the analysis resulting in a total of 62 participants. HCWs range in responding to the bi-weekly emails was a minimum of zero responses and a maximum of 11, the average response rate was 7.8. QPR training was completed by 73 (74%)

HCWs, 59 from the CH, and 14 from the CAH. The participants were combined from both hospitals after the average means were compared and minimal differences were noted. With statistician guidance the data was assessed, and four groups were formed based on the number of emails answered and QPR attendance. The mean percentage of change and the mean absolute change was calculated for each group, a two-tailed *t*-test was used to compare difference between groups. The results from the MICA-4 and MAKS surveys Table 2.0 and 3.0 report the mean and absolute percentage change. The mean absolute change is a calculation of the simple difference between the post and pre-scores for each group, while the mean percentage change takes the difference from the post to pre-scores and divides it into the post and multiplies by 100 to obtain a percentage.

Survey Details. The MICA-4 survey showed a positive change in all HCWs' attitudes and basic mental health knowledge. A statistical significance was found when comparing groups two and four ($p=0.01$) the only difference between these groups was the attendance of QPR, both answered five or more emails. Group three was not compared in either the MICA-4 or the MAKS due to the small number ($n=2$) within the group.

The MAKS survey addressed stigmas and knowledge related to mental illness; the results demonstrated mixed improvements with groups three and four who did attend QPR having a positive change. All participants who attended QPR self-reported an improvement in knowledge and skills related to communicating about suicide. The survey demonstrated improvements in knowledge and attitudes, however no correlation could be identified between the number of emails read and participants survey score. A statistical significance of ($p=0.02$) between group one and four was found, and the difference between these groups was the attendance of QPR and

the number of answered emails. The common link for both statistically significant changes was the attendance of QPR.

Details of the process measures and outcomes. Outcome #1 was achieved by implementing QPR and bi-weekly emails at a CH and a CAH. Outcome #2 demonstrated that of the 99 participants, 75% completed the QPR training and answered one or more email questions. Outcome #3 showed a 14% positive change in the MICA-4, a 3% positive change in the MAKS, and a 100% positive change in the QPR. Outcome #4 related to HCWs answering the qualitative questions, 79% (n=63) answered the questions. Outcome #5 focused on improving HCWs participation in community events or organization that supported mental health, 25% participated.

Table 2.0 MICA-4 Mean %, and Absolute Change

Groups	N	Mean % Change MICA	Standard Deviation	Minimum	Maximum	Group Comparisons (% change)
1=No QPR & emails<5	8	-13.6%	16.7%	-36%	23%	1 VS 2 = 20%
2=No QPR & emails>=5	18	-4.1%	17.1%	-41%	24%	1 VS 4 = 44%
3=QPR & emails<5	2	-14.7%	29.9%	-36%	6%	
4=QPR & emails>=5	34	-18.1%	14.0%	-53%	14%	2 VS 4 = 0%

Groups	N	Mean Absolute Change MICA	Standard Deviation	Minimum	Maximum	Group Comparisons (P-Value)
1=No QPR & emails<5	8	-0.33	0.48	-1.00	0.69	1 VS 2 p=0.28
2=No QPR & emails>=5	18	-0.13	0.41	-0.94	0.69	1 VS 4 p=0.51
3=QPR & emails<5	2	-0.39	0.73	-0.91	0.13	
4=QPR & emails>=5	34	-0.43	0.39	-1.69	0.31	2 VS 4 **p=0.01**

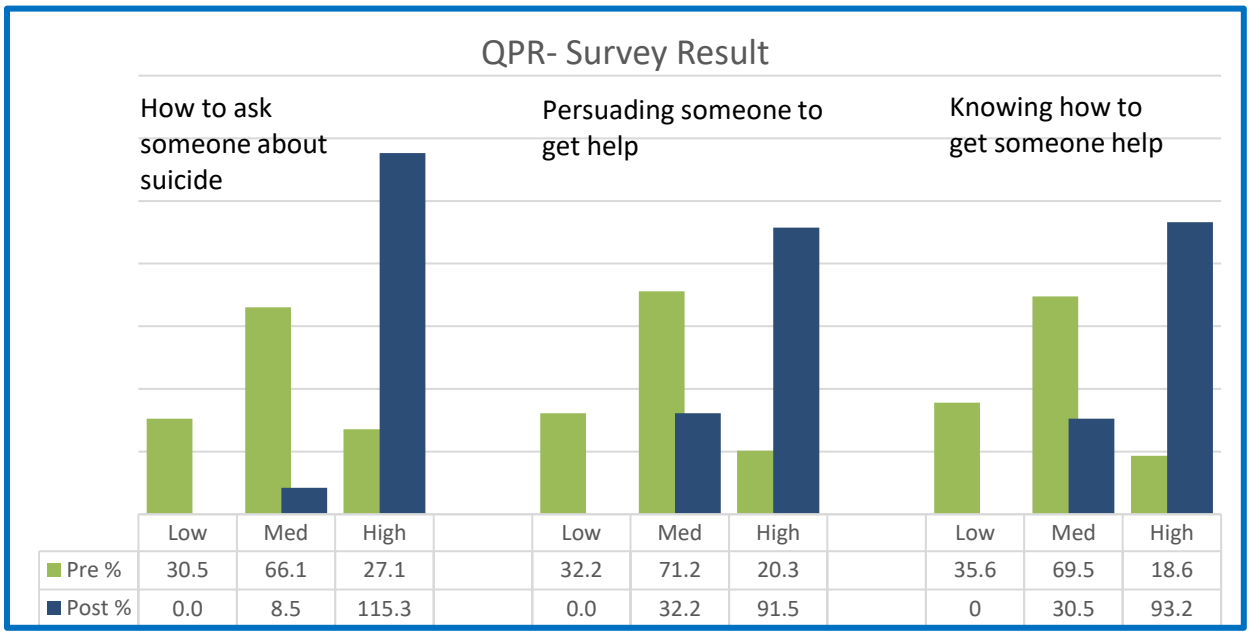
Table 3.0 MAKS Mean %, and Absolute Change

Groups	N	Mean % Change MAKS	Standard Deviation	Minimum	Maximum	Group Comparisons (% change)
1=No QPR & emails<5	8	-5.8%	7.1%	-17%	4%	1 VS 2 = 28%
2=No QPR & emails>=5	18	-1.3%	10.4%	-18%	15%	1 VS 4 = 7%
3=QPR & emails<5	2	6.3%	8.8%	0%	13%	
4=QPR & emails>=5	34	6.4%	18.3%	-20%	93%	2 VS 4 = 11%

Groups	N	Mean Absolute Change MAKS	Standard Deviation	Minimum	Maximum	Group Comparisons (P-Value)
1=No QPR & emails<5	8	-0.27	0.34	-0.83	0.17	1 VS 2 p=0.25
2=No QPR & emails>=5	18	0.06	0.44	-0.83	0.67	1 VS 4 **p=0.02**
3=QPR & emails<5	2	0.25	0.35	0.00	0.50	
4=QPR & emails>=5	34	0.21	0.53	-0.83	2.17	2 VS 4 p=0.07

Figure 4.0 displays 73 participants' pre-post results from three questions on the QPR survey. Participants self-reported their knowledge as either low, medium, or high for: 1) asking someone about suicide, 2) persuading someone to get help, 3) knowing how to get someone help. QPR training demonstrated HCWs self-reported a lack of knowledge and skill related to suicide prevention prior to training. In each of the questions it was noted that 100% (n=73) of participants self-reported an improvement after the QPR training. The results demonstrated after training all self-reported low knowledge levels were 0%, meaning all participants self-reported either medium or high after the training.

Figure 4.0 QPR Results



	Low	Med	High	Low	Med	High	Low	Med	High
Pre %	30.5	66.1	27.1	32.2	71.2	20.3	35.6	69.5	18.6
Post %	0.0	8.5	115.3	0.0	32.2	91.5	0	30.5	93.2

Table 5.0 displays the six qualitative questions asked in the post survey; 79% (n=63) of participants (Outcome #4) responded. The comments are grouped beside each question using key ideas and common statements. Many reported improved communication, comfort, and skills related to talking to someone about suicide. Other comments expressed an improved comfort in talking and asking about suicide. Several stated, “I no longer fear planting the idea or giving someone the idea of suicide.” Twelve participants or 19% responded the training has changed how they assess and evaluate patients within their current nursing practice. Some stated they are now more direct in how they question patients about suicide, several reported talking to teenage children about suicide. Two reported confronting a friend who was exhibiting warning signs of suicide, neither friend was suicidal but prior to training both reported they would have never engaged in that type of questioning with a friend.

Table 5.0 Qualitative Feedback Summary

The Questions	Participant Comments (n=63)
What did you enjoy most about the mental health training?	• Learning to be direct when asking about suicide • QPR training • Weekly emails with facts and quizzes improved knowledge and engagement • Learning it was okay to talk about suicide, you aren't giving someone the idea • Presenters energy and knowledge • Skills that I will use with patients
Have you utilized the QPR training with someone since learning it?	• Yes =22 • No =35 • No response = 6
If you have used QPR would you like to share anything?	• "It changed a family's view on how to help their loved one" • The use of a direct and more caring approach when completing the psychological assessment • Recognized warning signs and immediately addressed • Spoke with teenager about suicide
Do you feel this training should be required for all Healthcare workers?	• Yes = 63
Do you have any suggestions for improving for this training?	• More articles attached to emails related to healthcare workers impact on suicidal patients • Expand training to the outpatient clinic areas • Continue emails on a monthly or at least quarterly schedule • Loved the format no suggestions
Did you find the information in the emails helpful?	• Yes =59 responded • No= 1 • No response =3
Is there anything you would like to share or recommend?	• Would like QPR quick cards in staff breakroom • Appreciation for training and practical application • Would like questions and answers in the emails to come as one • QPR should be required just like CPR and for all staff not just nurses

Many HCWs were not knowledgeable about local community programs that support suicide prevention; 25% of HCWs participated in community events or attended meetings that

supported mental health (Outcome #5). Participation and interaction with patients or community members who may have a mental illness or may have been or are suicidal has been shown to improve HCWs' negative stigmas, biases, and attitudes (Bolster, Holliday, & Shaw, 2015). For some HCWs, just becoming aware of their negative stigmas and attitudes can create a change (Griffiths et al., 2014; FitzGerald & Hurst, 2017).

Contextual elements that interacted with the intervention(s). Staff at the CH and the CAH have many required yearly trainings. Attending voluntary trainings can be a difficult task for the HCW, as time is valuable. This likely impacted the attendance of the QPR trainings, and overall project participation. In the CH community, there were two public figures who died by suicide prior to the project implementation. The deaths were made public in the newspaper and local news media coverage, which may have created more interest and concern surrounding suicide prevention.

Unintended consequences and potential for spread to other contexts. QPR trainings gained interest after several community training occurred, and many local venues began to request trainings. The project lead worked with the local health department and other QPR trainers to meet the requests. Trainings were completed in various community settings ranging from school district events, police departments, libraries, recovery centers, senior support centers, and numerous other locations. The project leads involvement with SPAN and the local health department helped facilitate a larger focus on QPR trainings within the community. SPAN allocated money to increase the number of QPR trainers, now a total of four instructors are available to serve the community. Over and eight-month period the project lead and one QPR instructor from the health department completed 28 QPR trainings in which 719 community members attended, which means there are now 719 people who have new skills to

save a life. To maintain a focus on QPR, the project lead reports the QPR trainings each month at the SPAN meetings. SPAN also received the "Share the Love" award from Subaru and will receive over $10,000. This money will allow for the purchase of QPR booklets and training of more QPR instructors. Lastly, the CH now offers 250 "wellness points" if employees attend QPR, the points accumulate and roll into their voluntary employee beneficiary account (VEBA) which can be used to pay for medical expenses. The project lead offers monthly QPR sessions at the CH for any employee or their family members.

Discussion of Results

The aim of this project was to improve HCWs' mental illness and suicide prevention knowledge, to result in improved attitudes, behaviors, and self-efficacy. The initial MICA-4 and MAKS surveys demonstrated HCWs did have some level of negative stigmas and biases related to people with a mental illness. The pre-training QPR survey demonstrated HCWs' had a lack of knowledge when asking or talking to someone about suicide. QPR participants self-reported improvement in knowledge and skills related to identifying and questioning a person about signs and feelings of suicide. The qualitative feedback demonstrated participants found training beneficial and recommended training become a mandatory requirement. The qualitative questions also provided the opportunity for participants' personal stories which demonstrated improved self-efficacy by a self-reported improved ability to talk about suicide with friends and family as well as patients. This information was shared with hospital leadership in an order to secure the continual training within the organization.

Using Spaced Learning through emails in conjunction with QPR proved to be a novel approach to improve knowledge retention. Research using Spaced Learning to improve retention was supported in the literature, however, using it as a method to reduce negative stigmas and

attitudes is a new concept. The results indicate that when five or more emails were answered it did have an impact on the participants self-reported attitudes and stigmas. Using this approach allowed for a flexible and creative approach to address a variety of mental health and suicide issues.

The MICA-4 results demonstrated improvements in all groups, regardless of QPR attendance or the number of emails answered. Those who attended QPR and answered five or more emails had slightly higher scores, however, only when comparing QPR to no QPR was a statistically significant finding noted. The MAKS results varied and did not demonstrate emails were a factor for those who had improvement in scores, however, results did show QPR was a factor in improved scores. While not measured the increased awareness among participants after training may have stimulated increased conversations about mental illness and suicide among the HCWs and been another factor in the changes.

Although, improvement in participants scores were seen in both QPR groups and non-QPR groups the project leads hope that those who read and learn about Spaced Learning may consider it as an adjunct to many other educational interventions.

Interpretation

Association between interventions and outcomes. QPR training and bi-weekly emails were used together to increase HCWs' knowledge of suicide and improve their self-efficacy when interacting with people experiencing a suicidal crisis. The emails allowed participants to obtain small amount of information over a six-week period. The outcomes demonstrated participants who read five or more emails had greater changes in their post survey analysis. The emails were easy to read, required a short amount of time but allowed participants the opportunity to reflect on the information at their convenience. While this project does not

demonstrate a direct connection to practice changes due to the short implementation period, it does support other research finding that providing HCWs with knowledge and skills often leads to improved assessments and identification of patients with suicidal thoughts. Bolster et al., (2015) and Griffiths et al., (2014) found evidence to support training interventions related to improving knowledge and skills of HCWs related to mental illness and suicide do have positive effects. Increasing HCWs' knowledge and awareness of mental illness and suicide has been shown to improve stigmas, biases, attitudes, and self-efficacy when caring for these patients (Blair, Steiner, & Havranek, 2011; Robb & Stone, 2016; Smith et al., 2017).

Participants demonstrated their willingness to read and respond to the bi-weekly emails, with the average participant responding to seven emails over a six-week period. Further assessment would need to be explored to determine the most appropriate number and frequency of emails. Using emails as a Spaced Learning method has potential to not only continue to address negative myths and stigmas associated with mental illness and suicide but for many other educational topics and issues (Sean & Kang, 2016).

This project created the opportunity for HCWs gain knowledge about mental health, suicide prevention, and community activities that support mental health leading to improved self-efficacy. In alignment with the SCT individuals acquire knowledge through observations and then translate it into behaviors, this project aimed to allow HCWs' to become aware of their knowledge levels, negative stigmas and attitudes to then be able to create positive changes (FitzGerald & Hurst, 2017; Griffiths et al., 2014).

Impact of project on people and systems. Having HCWs who can talk openly about suicide and recognize warning signs can greatly improve the identification of patients at risk. One participant commented on the post survey, "This training has forever changed how I will

complete my assessments on patients related to asking about suicide". This project raised the importance of suicide awareness leading to QPR becoming a monthly training at the CH. The health department has allocated money to have additional QPR instructors trained to meet the requests of the community.

Reasons for differences between observed and anticipated outcomes. The mean percent and absolute change in the MICA-4 and MAKS surveys were less than anticipated. Conceivably, participants who self-selected may have had fewer negative stigmas and higher knowledge related suicide. The email response rate was greater than anticipated and could perhaps be due to participants viewing emails as a quick, convenient way to gain new knowledge that was useful to their practice. The project lead received far more questions and reactions from participants than anticipated. This was likely due to the project leads positive relationship within the CH; it seemed participants felt safe sharing stories and asking questions. It could also be a result of the frequency of the emails which may have stimulated questions. The change seen in the pre/post QPR survey results were higher than anticipated. Participants' self-assessments clearly revealed a lack of comfort surrounding suicide knowledge and skills. Ramberg, DiLucca, and Hadlaczky (2016) found the same to be true and concluded that providing suicide training education was likely to improve HCWs' attitudes towards prevention and build self-confidence when caring for suicidal patients.

Costs and strategic trade-offs. Cost and time considerations were key in the project design. Many evidence-based gate-keeper suicide prevention trainings exist, they range in time from 60 minutes to 16 hours and cost from $25.00 to $500.00. QPR training was 90 minutes, and most instructors offer free trainings or charge $5-10.00 to cover the cost of the QPR booklets printing cost of the certificates. It was decided a 90-minute educational activity would engage

more HCWs than one requiring a 16-hour commitment. Another benefit to QPR training was that if the CH decided to require all employees to take the training, the cost would not be as prohibitive.

The use of Spaced-Learning (Blazek, Dantz, Wright, & Fiedorowicz, 2016) through bi-weekly emails was an additional element designed to reinforce and enhance knowledge retention about mental illnesses and suicide prevention. This intervention was free other than the cost of the project lead developing the questions and responding to the participants. This allowed for a flexible and creative way to engage participants.

Policy implications. Improving knowledge and skills of HCWs has been shown to improve identification and treatment in patients with mental illness or those having suicidal ideations (Ahmendani, 2011). As of 2017, 10 states require mental and behavioral healthcare professionals to complete some type of suicide prevention training. Of those ten, Nevada, Washington, and West Virginia are the only states that require healthcare professionals like nurses and physicians to complete mandated training on suicide prevention (Graves, Mackelprang, VanNatta, Holliday, 2018). The project lead is creating a policy draft to share with the Idaho State Board of Nursing (ISBON) to gain support for requiring suicide training with nurses' licensure renewal. The ISBONs continuing education requirements are unique as they allow nurses to have flexibility in earning continuing education. The suicide prevention requirement would also be flexible allowing choices of continuing education focusing on suicide prevention or allowing nurses to participate in community activities that support mental health or suicide prevention. Lastly, the CH and CAH will be presented with ideas to incorporate suicide prevention training into general orientation.

Limitations

Limitations include a small sample size which limits the ability to make comparisons between groups, due to group imbalances. Thirty-seven participants who completed the initial survey did not complete the post survey. Mental health knowledge was not established prior to participation. The project lead developed the email questions and chose bi-weekly email for six weeks based on the project timeline. Literature was limited on determining timing and frequency for the email intervention. The results were also all self-reported from HCWs not actually measured or observed during clinical practice encounters.

Implications for Practice and Further Study. This project supports QPR as an effective intervention for teaching HCWs how to ask people about suicide, persuade them to stay alive, and then refer them for help. The Spaced Learning theory was supported as an effective and efficient way to deliver small amounts of education over an extended time. Spaced-learning is flexible and can be adapted for a variety of trainings. Learning new information and reviewing previously learned knowledge is something HCWs do throughout their careers. Spaced-learning can assist HCWs in learning and retaining the vast amount of knowledge needed in their practice. Raising awareness and knowledge of HCWs is an important first step in improving negative stigmas, biases, and attitudes about mental illness and suicide.

Next Steps and Dissemination. Future work includes sharing the results with the CH and CAH and possibly asking the participants to complete a follow-up survey a year post implementation. Another opportunity is to establish a second project including other CAHs within the region. The project will be presented to the Boise State University faculty and several abstract submissions will be completed for nursing conferences in 2019. Lastly, a manuscript will be written and submitted to a peer-reviewed journal.

Conclusion

The project demonstrated a positive impact on HCWs' self-reported knowledge, skills, and attitudes about mental illness and suicide prevention. QPR training and bi-weekly educational emails should be considered as an option when address this issue. This project sets the foundation for future developments and larger scale implementation for both organizations. The impact of raising HCWs' awareness, knowledge, and skills related to mental illness and suicide prevention increases early identification and referrals of patients, friends, family members, and community members, leading to better outcomes for all. When awareness is immediately preceded by an opportunity for HCWs to gain new knowledge, it creates an opportunity to reduce negative stigmas and biases which results in better outcomes for all (Blair et al., 2011).

References

Ahmedani, B. K., Stewart, C., Simon, G. E., Lynch, F., Lu, C. Y., Waitzfelder, B. E., ... Williams, K. (2015, May). Racial/ethical differences in health care visits made before suicide attempt across the united states. *Medical Care*, *53*(5), 430-435. https://doi.org/10.1097/MLR.00000000000335

Ahmendani, B. K. (2011). Mental health stigma: society, individuals, and the profession. *Journal of Social Work Values and Ethics*, *8*(2), 1-6. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3248273/

American Foundation for Suicide Prevention. (2016). Suicide statistics. Retrieved from https://afsp.org/about-suicide/suicide-statistics/

Blair, I. V., Steiner, J. F., & Havranek, E. P. (2011). Unconscious (implicit) bias and health disparities: Where do we go from here? *The Permanente Journal*, *15*, 71-78. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3140753/

Blazek, M. C., Dantz, B., Wright, M. C., & Fiedorowicz, J. G. (2016). Spaced learning using emails to integrate psychiatry into general medical curriculum: Keep psychiatry in mind. *Medical Teacher*, *38*, 1049-1055. http://dx.doi.org/10.3109/0142159x.2016.1150982

Bolster, C., Holliday, C., & Shaw, M. (2015). Suicide assessment and nurses: What does the evidence show? *American Nurses Association, 20*(1). Retrieved from http://dx.doi.org/10.3912/OJIN.Vol20No01Man02

Bono, V., & Amendola, C. L. (2015). Primary care assessments of patients at risk for suicide. *Journal of the American Academy of Physician Assistants*, *28*(12), 35-39. http://dx.doi.org/10.1097/01.JAA.0000473360.07845.66

Boundary Community Hospital. (2017). About the hospital. Retrieved from http://www.boundarycommunityhospital.org/

Carmona-Navarro, C. M., & Pichardo-Martinez, M. C. (2012). Attitudes of nursing professional towards suicidal behaviors: influence of emotional intelligence. *Rev. Latino-Am. Enfermagem, 20,* 1161-1168. Retrieved from http://dx.doi.org/10.1590/s0104-11692012000600019

Clark, D., Usick, R., Sanderson, A., Giles-Smith, L., & Baker, J. (2014). Emergency department staff attitudes towards mental health consumers: a literature review and thematic content analysis. *International Journal of Mental Health Nursing*, *23*, 273-284. http://dx.doi.org/10.1111/inm.12040

Corrigan, P., Druss, B. G., & Perlick, D. A. (2014). The impact of mental illness stigma on seeking and participating in mental health care. *Association for Psychological Science*, *15*(2), 37-70. http://dx.doi.org/10.1177/1529100614531398

Devine, P. G., Forscher, P. S., Austin, A. J., & Cox, W. T. (2012, November). Long-term reduction in implicit race bias: A prejudice habit-breaking intervention. *Journal of Experimental Social Psychology*, *48*(6), 1267-1278. http://dx.doi.org/10.1016/j.jesp.2012.06.003

FitzGerald, C., & Hurst, S. (2017). Implicit bias in healthcare professionals: A systematic review. *BioMedCentral*, *18*(19), 1-18. http://dx.doi.org/10.1186/s12910-017-0179-8

Gras, L. M., Swart, M., Slooff, C. J., Weegheel, J., Knegtering, H., & Castelein, S. (2015). Differential stigmatizing attitudes of healthcare professional towards psychiatry and patients with mental health problems: something to worry about? a pilot study. *Social*

Psychiatry and Psychiatric Epidemiology, 50, 299-306. http://dx.doi.org/10.1007/s00127-014-0931-z

Griffiths, K. M., Carron-Arthur, B., Parsons, A., & Reid, R. (2014). Effectiveness of programs for reducing the stigma associated with mental disorders. A meta-analysis of randomized controlled trials. *World Psychiatry, 13*, 161-175. http://dx.doi.org/10.1002/wps.20129

Hall, H. R., & Roussel, L. A. (2017). *Evidence-based practice an integrative approach to research, administration, and practice* (2nd ed.). Burlington, MA: Jones & Bartlett.

Haslam, S. A., Jetten, J., Postmes, T., & Haslam, C. (2009). Social identity, health and well-being: An emerging agenda for applied psychology. *Applied Psychology*, *58*(1), 1-23. http://dx.doi.org/10.1111/j.1464-0597.2008.00379.x

Hayes, J. F., Marston, L., Walter, K., King, M. B., & Osborn, D. P. (2017). Mortality gap for people with bipolar disorder and schizophrenia: UK-based cohort study 2000-2014. *The British Journal of Psychiatry, 211*, 175-181. https://doi.org/10.1192/bjp.bp.117.202606

Idaho Department of Health and Welfare. (2016). Mental health. Retrieved from http://healthandwelfare.idaho.gov/Medical/MentalHealth/StateHospitals/tabid/495/Default.aspx

Idaho Department of Labor. (2013). Idaho's Health Care Industry. Retrieved from https://labor.idaho.gov/publications/HealthCareScan2013.pdf

Issel, L. M. (2014). *Health program planning and evaluation: A practical, systematic approach for community health*. Burlington, MA: Jones & Bartlett Learning.

Johns Hopkins Bloomberg School of Public Health. (2016, June 6). News stories often wrongly link violence with mental illness. *ScienceDaily*. Retrieved from www.sciencedaily.com/releases/2016/06/160606200849.htm

Kassam, A., Glozier, N., Leese, M., Henderson, C., & Thornicroft, G. (2010). Development and responsiveness of a scale to measure clinicians' attitudes to people with mental illness. Retrieved from doi.org/10.1111/j.1600-0447.2010.01562.x

Knaak, S., Mantler, E., & Szeto, A. (2017). Mental illness-related stigma in healthcare: Barriers to access and care and evidence-based solutions. *Healthcare Management Forum*, *30*(2), 111-116. http://dx.doi.org/10.1177/0840470416679413

Kootenai Health. (2016). Mission, vision and facts. Retrieved from https://www.kh.org/mission-vision-and-facts/

Kothe, E. J., Mullan, B. A., & Butow, P. (2012, June). Promoting fruit and vegetable consumption. Testing an intervention based on the theory of planned behaviour. *Appetite*, *58*, 997-1004. http://dx.doi.org/10.1016/j.appet.2012.02.012

Logic model development guide. (2004). Retrieved from https://www.bttop.org/sites/default/files/public/W.K.%20Kellogg%20LogicModel.pdf

Malzberg, B. (1932). Life tables for patients with mental disease. *Journal of the American Statistical Association*, *27*(177A), 160-174. https://doi.org/10.1080/01621459.1932.10502581

Maranzan, K. A. (2016). Interprofessional education in mental health: an opportunity to reduce mental illness stigma. *Journal of Interprofessional Care*, *30*(3), 370-377. http://dx.doi.org/10.3109/13561820.2016.1146878

Martensson, G., Jacobsson, J. W., & Engstrom, M. (2014). Mental health nursing staff's attitudes towards mental illness: An analysis of related factors. *Journal of Psychiatric and Mental Health Nursing, 21*, 782-88. http://dx.doi.org/10.1111/jpm.12145

Mental health actual dollar and per capita expenditures by state. (2015). Retrieved from http://www.nri-incdata.org/

Modgill, G., Patten, S. B., Knaal, S., Kassam, A., & Szeto, A. C. (20*14*, April 23). Opening minds stigma scale for healthcare providers (OMS-HC): Examination of psychometric properties and responsiveness. *BioMed Central Psychiatry*, 14(120). http://dx.doi.org/10.1186/1471-244X-14-120

Morgan, A. J., Reavley, N. J., Jorm, A. F., & Beatson, R. (2016). Experiences of discrimination and positive treatment from health professionals: A national survey of adults with mental health problems. *Australian & New Zealand Journal of Psychiatry, 50*(8), 754-762. http://dx.doi.org/10.1177/0004867416655605

National Alliance on Mental Illness. (2017). Mental health by the numbers. Retrieved from https://www.nami.org/Learn-More/Mental-Health-By-the-Numbers

Overton, S. L., & Medina, S. L. (2008, Spring). The stigma of mental illness. *Journal of Counseling and Development, 86*, 143-151. Retrieved from http://pzacad.pitzer.edu/~hfairchi/pdf/psychology/Social%26Diversity/Overton(2008)StigmaMentalIllness.pdf

Owens, D. (2002). Fatal and non-fatal repetition of self-harm: systematic review. *British Journal of Psychiatry, 181*, 193-199. Retrieved from https://www.hsph.harvard.edu/means-matter/means-matter/survival/#Owens

Project Implicit Bias. (2018). Retrieved 9/9/2018, from https://implicit.harvard.edu/implicit/user/pimh/index.jsp

Question, Persuade, and Refer. (2011). Resources and research. Retrieved from https://www.qprinstitute.com/research-theory

Ramberg, I. L., DiLucca, M. A., & Hadlaczky, G. (2016). The impact of knowledge of suicide prevention and work experience among clinical staff on attitudes towards working with suicidal patients and suicide prevention. *International Journal of Environmental Research and Public Health, 13*(2), 195-199. https://doi.org/10.3390/ijerph13020195

Robb, J., & Stone, J. (2016). Implicit bias toward people with mental illness: A systematic literature review. *Journal of Rehabilitation*, *82*(4), 3-13. Retrieved from http://web.b.ebscohost.com.libproxy.boisestate.edu/ehost/pdfviewer/pdfviewer?sid=907d564f-079b-4f67-a60f-d46449c31290%40sessionmgr104&vid=5&hid=118

Rosen, D. (2014, November 23). How bias and stigma undermine healthcare. *Holistic Primary Care*. Retrieved from https://holisticprimarycare.net/topics/topics-o-z/reflections/1653-how-bias-and-stigma-undermine-healthcare.html

Rosenbaum, L. (2016, October 20). Closing the mortality gap-mental illness and medical care. *The New England Journal of Medicine*. *375*(16), 1585-1589. https://doi.org/10.1056/NEJMms1610125

Sampogna, G., Bakolis, I., Evans-Lacko, S., Robinson, E., Thornicroft, G., & Henderson, C. (2017). The impact of social marketing campaigns on reducing mental health stigma: Results from the 2009-2014 time to change programme. *European Psychiatry*, *40,* 116-122. http://dx.doi.org/10.1016/j.eurpsy.2016.08.008

Schroeder, R. (2013). The seriously mentally ill older adult: Perceptions of the patient-provider relationship. *Perspectives in Psychiatric Care, 49*, 30-40. http://dx.doi.org/10.1111/j.1744-6163.2012.00338.x

Sean, H., & Kang, K. (2016). Spaced repetition promotes efficient and effective learning: Policy implications for instruction. *Behavioral and Brain Sciences, 31,* 12-19. http://dx.doi.org/10.1177123727273111562 4708

Smith, J. D., Mital, D., Chekuri, L., Han, X., & Sullivan, G. (2017). A comparison of provider attitudes toward serious mental illness across different health care disciplines. *Stigma and Health*, *2*, 327-337. http://dx.doi.org/10.10377/sah0000064

Stull, L. G., McGrew, J. H., Salyers, M. P., & Ashburn-Nardo, L. (2013). Implicit and explicit stigma of mental illness: Attitudes in an evidenced-based practice. *Journal of Nervous Mental Disorders*, *201,* 1072-1079. http://dx.doi.org/10.1097/NMD.0000000000056

Suicide Prevention Action Network of Idaho. (2017). Idaho suicide facts and statistics. Retrieved from http://www.spanidaho.org/idaho-suicide-facts

Sylvia, M. L., & Terhaar, M. F. (2014). *Clinical analytics and data management for the DNP*. New York, NY: Springer Publishing Company.

The Henry J Kaiser Family Foundation. (2015). Total number of certified nurses and facilities. Retrieved from http://kff.org/other/state-indicator/number-of-nursing-facilities/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D

The Henry L. Kaiser Family Foundation. (2013). State mental health agency per capita mental health service expenditures. Retrieved from https://www.kff.org/other/state-indicator/smha-expenditures-per-capita/?currentTimeframe=0&sortModel=%7B%22colId%22:%22SMHA%20Expenditures%20Per%20Capita%22,%22sort%22:%22desc%22%7D

The Kaiser Family Foundation. (2016). State mental health agency per capita service expenditures. Retrieved from http://www.kff.org/other/state-indicator/smha-expenditures-per-capita/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D

Ungar, T., Knaak, S., & Szeto, A. (2016). Theoretical and practical considerations for combating mental illness stigma in health care. *Community Mental Health Journal*, *52*, 262-271. http://dx.doi.org/10.1007/s10597-015-9910-4

Appendix A
Synthesis and Recommendations Tool

Category (Level Type)	Total Number of Sources/Level	Overall Quality Rating	Synthesis of Findings Evidence That Answers the EBP Question
Level II · Quasi-experimental studies · Systematic review of a combination of RCTs and quasi-experimental studies, or quasi-experimental studies only, with or without meta-analysis	1	1-A	(17) Implicit bias assessed via the IAT test in 19 research articles all showed that there is indeed implicit biases associated with mental illness.
Level III · Non-experimental study · Systematic review of a combination of RCTs, quasi-experimental, and non-experimental studies, or non-experimental studies only, with or without meta-analysis · Qualitative study or systematic review of qualitative studies with or without meta-synthesis	4	3-A 2-B	Articles: 6,10,14,15 Appendix G (6) Nurses' negative attitudes toward suicidal patients were evident in survey, negative emotions that were identified in the study were: anger, fear, irritation, frustration, sadness, discomfort, sympathy, empathy, and responsibility. Negative attitudes can jeopardize or influence the care decisions being made. The higher level of education impacted the nurse's attitudes. Nurses that had a personal experience with suicide had much more positive attitudes. (10) Attitudes of mental health and primary care providers towards people with schizophrenia were assessed. PCP had more negative attitudes toward patients compared with non-schizophrenia patients on both stereotyping and attributes of mental illness. Mental health providers had notably better attitudes and fewer stigmas towards the mentally ill. (14) Emergency department (ED) personnel both licensed and non-licensed personnel have stigmas attached to mental health (MH) patients. Surveys revealed ED staffs often feel they are at risk for violence with MH patients. Addressed that educational interventions should be more than on-line training for improved outcomes and improved sustainability. (15) National survey of adults with mental illness in Australia showed about 12% reported discrimination and 40% felt there healthcare providers treated them professionally. Anti-stigma education interventions for health care professionals should

			address how to increase knowledge and understanding of mental health problems and reduce negative attitudes and encourage supportive behaviors. (16) Several validated tools all revealed positive results with improved attitudes and decreasing stigma with educational efforts.
Level IV · Opinion of respected authorities and/or reports of nationally recognized expert committees/consensus panels based on scientific evidence	4	3-A 1-B	Articles: 1,9,11,12 Appendix G (1) Most nurses have little or no training on how to assess, evaluate, treat, or refer suicidal patients. Research suggests that trained nurses were able to assess, screen, and refer suicidal patients with remarkable success. (9) The Mental Illness Clinicians Attitude questionnaire showed significant differences between groups related to attitudes towards mental health patients. The most stigmatizing attitudes were found in the views of health/social care which included the fear of violent behaviors from those with mental illness. The tool also revealed that even healthcare workers would not want to tell a friend if they had a mental illness. (11) Knowledge deficits were reported in both confidence and knowledge related to mental health patients. Nurses felt confident in their communication skills, however lacked knowledge about management of complex mental illnesses. (12) Staff members that work with mental health patients in ED felt the need for more training related to mental health care and a referral system so they felt they were giving support to this population. There is a greater need for interprofessional mental health management. Also, caregivers want to feel they are offering some type of help but without adequate tools to care for MH patients caregivers felt it best to distance themselves.
Level V · Evidence obtained from literature reviews, quality improvement, program evaluation, financial evaluation, or case reports · Opinion of nationally recognized expert(s) based on experiential evidence	7	2-A 5-B	Articles: 2,3,4,5,7,8,13 Appendix G (2,3) Attitudes, communication and knowledge all influenced how healthcare workers interacted with MH patients, awareness of the need for improved training and education was noted. (3) Using Peplau's framework as a model for healthcare providers may serve as a foundation for future work. (4,5) Stigma related to MH patients was seen in the healthcare team, fear of violence and lack of knowing what do or say was one theme. The use of a think-aloud training program had positive results.

			(7) Main factor for negative attitudes was attributed to lack of knowledge. Older nurses >10 yrs experience felt more prepared to care for MH patients and had less stigmas. (8) Emotional intelligence measures of how people handled patients with MH issues. The results demonstrated nurses had negative attitudes towards suicidal behaviors. The moral aspect of suicide was also explored. The nurses who felt suicide was immoral had a clearer view of their own emotional well-being and had more positive attitudes. (13) Stigmas of the mentally ill are present within healthcare and society as a whole. A theoretical framework for the development of anti-stigma interventions in healthcare was developed. Analysis of healthcare professionals stigmas continue to impact the treatment of those with mental illness or those having a suicidal crisis.

Recommendations Based on Evidence Synthesis and Selected Translation Pathway
There are indeed a growing number of mental health patients being seen within emergency departments as well as physician offices. The literature searches failed to produce articles that pertained to only critical access hospitals or crisis centers. The literature supported that healthcare workers often carry negative attitudes and stigmas about patients with mental health issues. The literature supports efforts to reduce these issues so that mental health patients will continue to follow-up and receive the necessary treatments. Several studies implemented educational efforts to de-stigmatize mental health patients with success. Education is not the only interventions healthcare workers must take time to self-reflect and become aware of their implicit biases and discover how they impact the delivery of care for this patient population. Any healthcare worker that has interactions with mental health patients has the opportunity to be a positive role model and break the cycle of negative connotations related to mental illness.

Appendix B
Johns Hopkins Nursing Evidence-Based Practice Individual Evidence Summary Tool

EBP Question: Will raising the awareness of implicit bias and improving knowledge of mental illness in healthcare workers' impact the care delivered in a variety of healthcare settings?

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
1	Bolster, C.,Holliday, C., Oneal, G., Shaw, M. (2015)	Integrative Literature Review	54 articles N/A	Nurses have immediate interactions with patients and have opportunities to identify and intervene with suicidal patients. Most nurses have little or no training on how to assess, evaluate, treat, or refer a suicidal patient. This creates a barrier for at risk patients. Research suggests that trained nurses were able to assess, screen, and refer suicidal patients with remarkable success.	There was no one type of educational training identified that was best practice. No discussion on how often the education should occur.	Level IV-Quality A
2	Goode, D., Melby, V., Assumpta, R. (2014)	Qualitative Research Interviews	19 semi-structured interviews	The interviews covered attitudes, ability to communicate, knowledge and experiences with mentally ill patients. Findings suggest that more appropriate training is needed to raise awareness of issues related to mental health. Findings also found healthcare workers had fears related to the instability of the mental health patients, and that they often did not know what to say to help them deal with their present crisis.	Small sample size, only assessed in ED's not in other areas that care for mental health patients.	Level V-Quality B
3	Schroeder,R. (2013)	Qualitative phenomenological research design	☐ 8 in-depth interviews	This article reveals how older adults with serious mental illnesses view their healthcare relationships. The findings show elements of goodwill toward providers but also concerns about the reliability and their ability to form relationships which the patients viewed as a critical part of their care. Peplau's framework was discussed as a model for improving the connections between patients and providers. The patients described uncaring providers as intimidating, condescending and left them feeling like they had done something wrong.	Focused only on the seriously mentally ill older adult.	Level V-Quality B

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
4	Knaak, S., Modgill, G., Patten, S. (2014)	Qualitative analysis research study	☐ 22 pre/post test sets	Stigma related to mental health illness is a concern and can impact the care mental health patients receive. This study completed a six step intervention program to combat stigma associated with mental illness.	Considerable heterogeneity was observed after modeling for the interventions, short term evaluations; need to complete long term analysis.	Level V- Quality B
5	Mcallister, M., Billett, S., Moyle, W., Zimmer, M. (2009)	Qualitative mixed-methodology design	☐ 28 nurses	ED nurses tend to feel unprepared and lack confidence when caring for patients with mental illness who present with self-harm to the ED. This study utilized a think aloud interactive education intervention to improve attitudes, confidence and communication. The results showed improvement with the skills of the nurses.	Completed in one ED hospital on that population of ED nurses.	Level V- Quality B
6	Ouzouni, C., Nakakis, K. (2013)	Cross-sectional design	255 Nurses, 4 hospitals in Greece	Survey using the "Attitudes Towards Attempted Suicide-Questionnaire" (ATAS-Q) showed nurses have negative attitudes toward suicidal patients. The negative emotions that were identified in the study were: anger, fear, irritation, frustration, sadness, discomfort, sympathy, empathy, and responsibility. Negative attitudes can jeopardize or influence the care decisions being made. The higher level of education impacted the nurses' attitudes. Nurses that had a personal experience with suicide had much more positive attitudes.	Only illustrates the attitudes of these nurses, the survey had no definitions of words being assessed which can lead to open interpretations .	Level III Quality B

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
7	Van Der Kluit, M., Goossens, P. (2011)	Integrative Literature Review	N/A	Fifteen articles were assessed. In eleven of these articles the main factor for negative attitudes in nurses was the lack of knowledge and skills related to caring for a mentally ill patient. If nurses had experience with mental health patients they were much more likely to have positive attitudes. Educational levels were another consistent finding; nurses with higher levels of education had more positive attitudes. One study did find that nurses with more experience and longer time working with the mentally ill had more negative attitudes. Religion was addressed and impacts attitudes in a positive manner, but no statistically significance was noted.	The 15 studies were very diverse and used many different methods of gathering data which makes correlation difficult. More empirical studies in specific areas to validate the findings.	Level V Quality A
8	Carmona-Navarro, M., Pichardo-Martinez, C. (2012)	Descriptive and cross-sectional study	81 nurses, 52 from the ED, and 29 from mental health services. In Spain hospital.	This study explores emotional intelligence (EI) and that people with higher levels of EI have better physical and mental health and higher levels of well-being. The results showed that nurses have negative attitudes towards suicidal behaviors. There was a moral aspect explored that suicide is or is not an immoral act. The nurses who felt it was immoral had a clearer view of their own emotional well-being and had more positive attitudes.	This is the attitudes of one group of nurses within one hospital setting. Could not measure the correlation between emotional intelligence and the social desirability scale but it was evident there was a bias with the nurses answers.	Level V Quality A

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
9	Gras, L., Swart, M., Slooff, C., Weeghel, J. (2015)	A pilot study	175 healthcare providers	This study had three groups of healthcare providers and found through the use of the Mental Illness Clinicians Attitude questionnaire. Significant differences were found between groups related to attitudes towards mental health patients. The most stigmatizing attitudes were found in the views of health/social care which included the fear of violent behaviors from those with mental illness, and also disclosing to a friend if the individual had a mental illness.	Examined and compared 3 groups of healthcare professional's two groups the general practitioners and the forensic psychiatric group were specific to specialty the mental healthcare professionals consisted of a variety of members. Bias toward socially acceptable answers may play a factor.	Level IV-Quality A
10	Mittal, D., Corrigan, P., Sherman, M…et al. (2014)	Cross sectional survey design	351 healthcare providers from 5 facilities	Compared the attitudes of mental health and primary care providers towards people with schizophrenia. PCP had more negative attitudes toward patients compared with non-schizophrenia patients on both stereotyping and attributes of mental illness. The same measure was not observed for mental health providers on the same two measures.	More than half of the survey respondents were female. All participants were working in VA hospitals.	Level III Quality B
11	Sivakumar, S., Weiland, T.,	Quantitative & Qualitative study design	255 providers 135 nursing personnel	Knowledge deficits were reported in both confidence and knowledge related to mental health patients. Nurses felt confident in their communication skills, however lacked	Survey was 130 questions. Sample size	Level IV Quality A

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
	Gerdtz, M., et al.(2011)			knowledge about management of complex mental illnesses.	was evaluated based on the population and both categories failed to meet recommendations by a small percent, however information still can add to future research.	
12	Innes, K., Morphet, J., O'Brien, A., Munro, I., (2013)	Mixed methodology design using surveys and focus groups	66 healthcare workers	Staff members that work with mental health patients in ED felt they need more training related to mental health care. The development of a referral system was found to be beneficial, this allowed them to feel like they were giving support and offering hope. There is a greater need for interprofessional mental health management and caregivers want to feel that they are providing some form of assistance.	Data collected from one institution, also the focus groups were the next of kin of the MH patients which depending on the care provided and their relationship this may have created a bias.	Level IV Quality B
13	Ungar, T., Knaak, S., Szeto, A., (2016)	Expert Opinions and analysis	Mental Health Commission	This paper addresses the gap in the literature about stigmas of the mentally ill. A theoretical framework for the development of anti-stigma interventions in healthcare. Analysis of what drives stigma and that if healthcare personnel continue to practice with these stigmas the impact can result in less mentally ill seeking care and this often ends in their mortality.	This was funded from the Opening Minds anti-stigma initiative of the Mental Health	Level V Quality B

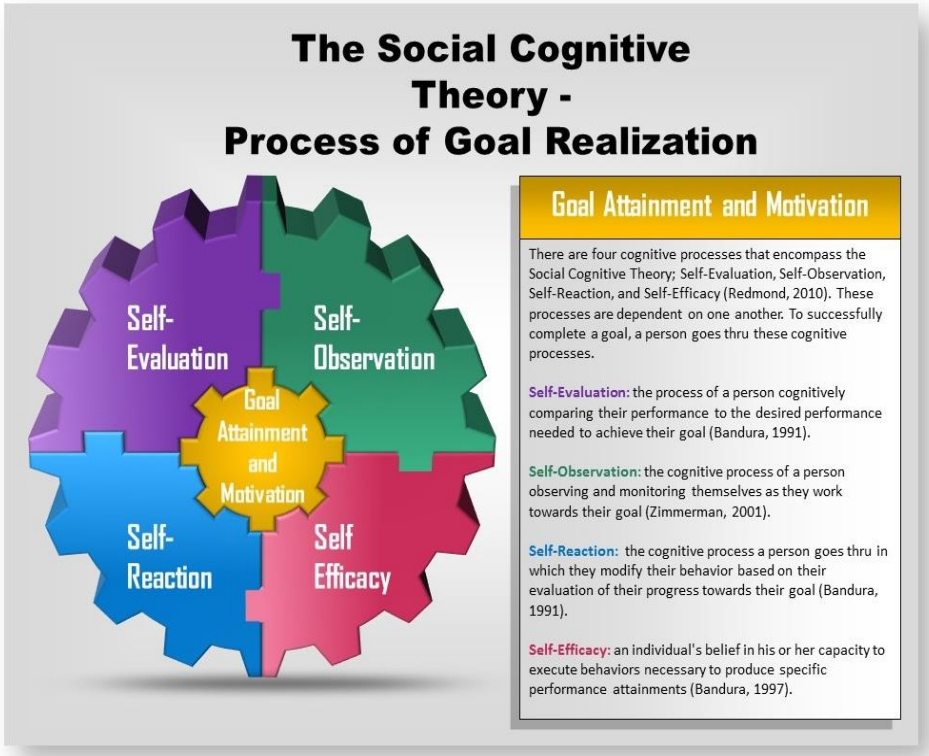
Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
					Commission in Canada. Large amount of references utilized but no synthesis or overall appraisal was given.	
14	Clarke, D., Usick, R., Sanderson, A., Smith, L., Baker, J., (2014)	Literature Review	42 papers in 10 different countries	This review addresses the stigma and attitudes of emergency departments related to mental health patients. Consumers, staff, and intervention to improve attitudes were all assessed. Interventions speak to education but challenge those who conduct the education to look beyond traditional approaches. Also, the importance of all personnel understanding the role they have in the care provided to the mentally ill plays a pivotal role in how this population is cared for. Care delivery needs to be team focused and be delivered without judgments.	Not all the authors of each study utilized a validated tool when collecting data. All articles were based within ED, no inpatient settings or community data is included.	Level III Quality A
15	Morgan, J., Reavley, N., Jorm, A., Beatson, R., (2016)	Mixed qualitative and quantitative design	1381 Australian adults with mental illness	National survey of adults with mental illness in Australia about 12% reported discrimination and 40% felt their healthcare providers treated them professionally. Anti-stigma education interventions for health care professionals should address how to increase knowledge and understanding of mental health problems and reduce negative attitudes and encourage supportive behaviors.	Australia has made great strides with anti-stigma campaigns over the last 15 years which is different that the US rates. Low response	Level III Quality A

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
					rate to the surveys.	
16	Martensson, G., Jacobsson, J.W., Engstrom, M. (2014)	Cross-sectional, correlational, and comparative design	256 staff from 32 different units in Sweden	Staff has more positive attitudes if their knowledge of mental illness is less stigmatized or has or had a close friend with a mental illness. The CAMI-S tool was used. Also the Mental Health Knowledge Schedule (MAKS) was used to measure staffs knowledge and parts of the Reported and Intended Behavior Scale (RIBS) to measure staff personal contact with persons with mental illness.	There were three different sub-scales used for the surveys and data analysis, it was stated that the missing data on the CAMI-S were replaced with the group mean.	Level III Quality A
17	Robb, J., Stone, J. (2016)	Systematic Literature Review	19 articles were reviewed	Over all of the articles reviewed all participants did indeed show implicit bias towards mental illness. The two most effective approaches for attitude change have included education interventions and contact interventions. The Implicit Association Test (IAT) is the most widely used measure for studying implicit social cognition.	Only 19 articles were included and the original search turned up over 2600 potentially relevant studies. Only studies that contained a version of IAT were included and due to human error some may have been missed. IAT internal reliability has	Level 1 Quality B

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
					ranged from .70-.90. The topic alone allows for limitations because of the sensitive nature.	
18	FitzGerald, C., Hurst, S. (2017)	Systematic Review	42 Articles	The evidence indicates that healthcare professionals exhibit the same level of bias as the general population. Also, that bias does influence treatment and diagnosis of patients.	Some studies had small samples size or inadequate power. Various interpretations were made about the IAT test in the 17 studies that utilized this method.	Level 1 Quality A
19	Blazek, M., Dantz, B., Wright, M., Fiedorowicz, J. (2016)	RCT	132 medical students, Michigan	The control group had higher post scores and higher scores were linked to higher responses on the emails. Timing and format were important; participants felt subject line should have been more distinct. Focus group done after intervention with design ideas given.	One group of medical students within one university. Nothing prevented students from talking about the emails from control group to study group.	Level 1 Quality A

Article #	Author & Date	Evidence Type	Sample, Sample Size & Setting	Study findings that help answer the EBP question	Limitations	Evidence Level & Quality
20	Kothe, Mullan, & Butow (2012)	RCT	117 participants, Australia	Limited data to compare feasibility and acceptability with this process, results were positive and statistically significant. Participant feedback gave high ratings for process. The results broadly support the that email-delivered intervention is an acceptable and feasible tool for promoting increased fruit and vegetable consumption.	Only done in Australian population. Because of the high ratings there was a lack of variability so some of the data could have reached significance d/t this factor.	Level 1 Quality A
21	Smith, Mital, Chekuri, Han, & Sullivan (2017)	Quasi-experimental design	256 providers, 5 VA hospitals, with 5 provider groups	The five provider groups were mental health nurses, psychiatrist, and psychologist, PCP, and primary care nurses. This study wanted to compare the attitudes of these 5 groups. The groups vary in their attitudes; all had negative attitudes on the pre/post survey however mental health nurses and psychiatrist had the least negative stigmatizing behaviors. The study used three surveys AQ-9, characteristic Scale, and the Bogardus Social distance scale. Training methods were discussed medical model verses recovery model. Focusing on recovery is important to change the negative stigmas.	Only done with VA hospital settings, response rates varied across the 5 disciplines. Utilized a hypothetical vignette which may of changed how providers diagnosed.	Level 2 Quality B

Appendix C



Used with permission: Francis, B. (2016, October 10). Self-efficacy and social cognitive theories. Retrieved from https://wikispaces.psu.edu/display/PSYCH484/7.+Self-Efficacy+and+Social+Cognitive+Theories#id-7.Self-EfficacyandSocialCognitiveTheories-OverviewofSocialCognitiveandSelf-EfficacyTheories

Appendix D
Kellogg Logic Model Table

Resources/Inputs	**Activities**	**Outputs**	**Outcomes: Short term**	**Outcomes: Long term**	**Impact**
Includes the human, financial, organizational, and community resources a program has available to direct toward the work.	Includes the processes, tools, events, technology, and actions that are intended to bring changes or results.	Direct products of program activities and may include types, levels and targets of services to be delivered by the program.	Specific changes in program. SMART. **Attainable during the DNP Scholarly Project timeline**	Specific changes in program. SMART. **Attainable 1-2 years after your DNP Project is completed.**	Fundamental intended or unintended change occurring because of **program activities within 3-5 years.**
Project Development: **Organizational needs assessment at a CH and CAH** **Learning systems utilized** **Educators within organizations** **Clinical Ladder Program Leader (CH)** **Community Mental Health Representative**	• Establish educator contacts at CH and CAH to learn what educational systems they utilize to meet the needs of the HCP • Assess how HCP like to receive their education • Meet with educators to share importance of project and gain acceptance • Gain knowledge of Clinical Ladder from CH expert Establish contacts at the Suicide Prevention Action Network (SPAN) at the Health Department	• Establish preferred method of education for staff at CH and CAH • CH and CAH will include mental health training within chosen learning system • Create a list of mental health activities HCP can use towards their Clinical Ladder program at CH Obtain list of community resources that SPAN offers and activities which volunteers could be utilized	1. Evidence-based Mental Health Training consisting of one live classroom session and six weeks of bi-weekly emails is implemented at CH and CAH by May 2018.	6. CH and CAH have established requirements that ensure all new hires receive Mental Health Training within their first 90 days of employment.	HCP will recognize and become aware of their implicit bias towards those with mental illness thorough the mental health training and education.

Facility Resources/Development: ○ **Critical access hospital** ▪ **Emergency department** ▪ **Medical unit** ▪ **Critical Care unit** ○ **Community Hospital** ▪ **Emergency department** ▪ **Medical Surgical Unit** ▪ **Orthopedic Unit** • **Healthcare personnel (HCP) within each of the settings** • **IT Resources/ Stakeholders**	• Establish a contact person at CAH and CH • Establish method for delivering on-line and classroom content • HCP agreeable to participate in project • Contact CH information technology person	• Obtain MOU from leadership at all health care facilities • Identify and recruit 35-45 participants from CH, and 20-30 from CAH • CH information management will obtain: number of patients seen with suicidal ideations, self-harm, bipolar, schizoaffective disorders, and anxiety • CAH will obtain same data • Obtain each hospitals patient satisfaction results related to nurse/patient communication on the HCAHPS • Obtain baseline number of referrals to case management related to mental health issues	2. Of the CH and CAH participants who agreed to participate in the Mental Health Training, 75% completed the training by September 1, 2018.	1. CH and CAH implement annual mandatory Mental Health Training with a 95% or greater compliance rate starting 01/2020.	HCP at CH and CAH will have established plan for organizational-wide mental health training for all employees on a yearly or every other year bases.
Educational Development ○ **On-line modules** ○ **Mental illness** ○ **Suicide Prevention-QPR training** ○ **Implicit bias /Stigma** ○ **Classroom activities** ○ **Guest speakers** ○ **Case studies** ○ **Video clips** ○ **Email activities** ○ **Establish email questions or short case studies weekly for 5 weeks**	• Contact Chief Nursing Officer at CAH to establish format for on-line education • Create learning module for CH • Develop on-line and didactic content • Develop short scenarios that can be delivered via email	3. Module developed and able to be completed by selected participates 4. Evidence based learning activities created along with evaluation methods 5. Mental health educator(s) and other behavioral health experts assist in the development of materials • Tool X measures HCP mental illness stigma	3. After completing Mental Health Training by September 1, 2018, the HCWs at CH, and CAH showed a 10% improvement from pre to post-survey on the MICA-4, MAKS and QPR surveys.	8. CH and CAH offer QPR training sessions for all employees working in the ED.	Improved HCAHPS score related to nurse communication with patients and recommending of hospital. Mandatory QPR training will occur for all CH and CAH employees.

○ **Designated method for survey distribution** **Mental Health Educators**	• Find a pre and post-test of knowledge related to mental illness • Find tools for mental health knowledge and attitudes or stigma related to mental illness • Obtain permission to use chosen tool Complete QPR training	• Tool Y measures HCP knowledge of mental illness • Tool QPR survey measures HCP self-efficacy related to questioning patient about suicidal thoughts or behaviors			
Project Evaluation: **HCAHPS** **Hospital Referrals for Mental Health Specialist** **Community Resources that support mental health:** • **Suicide Prevention Action Network (SPAN)** • **National Alliance on Mental Illness (NAMI)** **KH mental health resources** • **Healthcare personnel** • **Time** • **Organizational mental illness on-going training** • **Clinical Ladder usage**	• Identify activities offered by NAMI SPAN, or other community organizations for HCWs • Identify unit practice councils to have MH organizations visit and share information • Identify the time commitment for the HCW that participate • Contact NAMI and SPAN for local meeting times • Contact CH mental health specialist/ Educator • Identify person in information technology whom can run repots at CH	• Make a list of community organizations that support mental health and offer opportunities for HCWs to volunteer in a handout • Community mental health organizations are invited to attend unit practice councils at CH • Ensure CH staff know what mental health organization activities can be used for the Clinical Ladder Program • HCWs at CH and CAH have awareness of community mental health organizations 6. CH will place advertisement of the mental health community resources in the CH quarterly newsletter for staff 7. IT will run a report with percent of completed mental health screens within the ED @ CH	4. After completion of the Mental Health Training 60% of the participants complete the qualitative questions related to their experience and give feedback on the design and value the Mental Health training. 5. Ten percent of the HCWs within CH attended a mental health community meeting or participated in a community mental health organization event as part of their Clinical Ladder that supports mental health from 06/2018-10/2018.	9. CH and CAH create a procedure to utilize email education for suicide awareness and mental health education monthly for all employees by 01/2020. 10. Ten HCWs participate in community organizations that support mental health and utilize the Clinical Ladder program by 01/2020.	Both CH and CAH have staff that actively participates in community mental health activities and 90% or more of the mental health screenings are completed within the ED @ CH.

Appendix E

Memorandum of Understanding

Memorandum of Understanding

Between

Carlana Coogle, Doctor of Nursing Practice (DNP) student

Boise State University

and

This Memorandum of Understanding (MOU) outlines the terms and understanding between Carlana Coogle, a DNP student at Boise State University, and Kootenai Health, to pilot an evidence based educational intervention with healthcare workers.

Background

Mental illness affects one in five adults every year according to the National Alliance on Mental Health (NAMH, 2017). Patients suffering from mental illness are at increased risk for suicide; 90% of those who commit suicide have an underlying mental illness (Suicide Prevention Action Network [SPAN], 2016). In 2015 Idaho ranked fifth highest in the United States for suicide; this is 57% higher than the national average (SPAN, 2016). The evidence suggests that healthcare workers (HCWs) have a lack of knowledge related to mental illness and often harbor negative stigmas and attitudes about mental illness. Kootenai Health does not currently offer Question Persuade Refer (QPR) gatekeeper training an established evidence based program designed to train individuals on how to: recognize the warning signs of suicide, know how to offer hope, and know how to get help and save a life. When mental health patients encounter HCWs who hold negative attitudes, mental health patients are less likely to seek follow-up treatment or care (Clark, Usick, Sanderson, Giles-Smith, & Baker, 2014). Healthcare workers who are knowledgeable regarding mental illness provide optimal patient care.

Purpose

The purpose of this project is to raise awareness and improve healthcare workers' knowledge, attitudes, stigmas, and self-efficacy when interacting with patients having a mental illness or displaying suicidal risk factors. Healthcare workers have the ability recognize risk factors and provide referrals/resources when needed. The improved self-efficacy will be evident through the confidence in which the HCWs exert control over their motivations, behavior, and social environments (APA, 2016).

Intended Project Outcomes

- Improve HCWs' knowledge, and attitudes about mental illness
- Improve HCWs' knowledge of suicidal risk factors, and behaviors
- Improve HCWs' self-efficacy with QPR process
- Increase HCWs' community support and participation with events and organizations that

support mental health awareness

Duration

This Scholarly Project will begin in March of 2018 at Kootenai Health and will end in April of 2019. The implementation phase for HCW training will occur May, 2018 through September, 2018.

Methods

This project will use a process-implementation evaluation method for a pilot education training about mental illness. The project is designed to improve HCWs' knowledge and attitudes about mental illness and increase awareness of personal stigmas and biases. The objective is to have HCWs' that have improved self-efficacy when caring for or interacting with patients whom display suicidal risk factors. The HCWs' will include any member of the healthcare team who interacts with patients in the hospital setting. The following surveys will be used: The Mental Illness: Clinicians' Attitude Scale (MICA-4) which measures attitudes and basic mental health knowledge, the Mental Health Knowledge Schedule (MAKS) which explores stigmas related to mental illness, and the Question, Persuade, and Refer (QPR) surveys which measure suicide knowledge and self-efficacy. This will all provide quantitative data to evaluate the project interventions.

The following will be the process for the participants:

1. Receive and choose to either respond or ignore the recruitment email. If participants choose to respond they will click the survey link provided in the email.
2. The participants will read and respond to the MICA-4 and MAKS survey and choose one of four dates to attend the 90 minute live training session (dates and times will be given)
3. Exactly four days after the completion of the MICA-4 and MAKS survey the participants will start to receive bi-weekly emails for six weeks. The emails will consist of a variety of questions, scenarios, facts, and will ask the participants to respond to the DNP student, the emails should take no more than 10 minutes to read and respond.
4. Participants will attend the one 90 minute classroom session in which they will receive QPR gatekeeper training and receive certification through the QPR institute; the training includes a pre and post survey.
5. Seven days after completion of the six weeks of emails and the QPR gatekeeper training participants will receive the MICA-4, and MAKS surveys and be asked six qualitative questions about their experience with the mental health training given in this project. Those that have completed both the pre and post surveys will be entered to win a $50.00 Amazon gift card, two cards will be given out.

The data collection will be safeguarded within a secure data base with limited access, the software Research Electronic Data Capture (REDCap) will be used to administer all surveys and emails. REDCap is a secure web application used for building and managing online surveys and databases. After completion of the training and emails a post evaluation and summative assessment will be completed by measuring the change in survey scores for increased knowledge, attitudes changes, and increased self-efficacy toward suicide prevention.

Reporting

This DNP Scholarly Project will include a final report which will be submitted to Boise State University and will be published in ScholarWorks. ScholarWorks is a platform that showcases students' works at the University. The student will also submit this work for publication to a peer-reviewed journal. The final report will be presented at Boise State University in March of 2019.

No personal identifiers of the HCW will be included and all reported data will be aggregated. The student will present all data and information in a professional manner and will uphold the highest academic standards with all work presented.

The student will agree to follow Kootenai Health's preferences on how it would like to be named or referred to within the Scholarly Project.

Kootenai Health would like to be referred to as:

In the student's Final Report? A regional medical center in the Inland Northwest
In an abstract? A regional medical center in the Inland Northwest
In professional presentations? A regional medical center in the Inland Northwest
In professional publications? A regional medical center in the Inland Northwest
Any restrictions in the discussion of project details? No

Student Contact Information

Carlana J Coogle Date: 2/23/18
(*DNP Student signature*)
(*Carlana Coogle*), Boise State University DNP student

Jan Moseley Date: 2/22/18
(*Organizational Contact signature*)
(*Jan Moseley, Director of Professional Practice, Kootenai Health*)

Appendix F

Memorandum of Understanding

Memorandum of Understanding

Between

Carlana Coogle, Doctor of Nursing Practice (DNP) student

and

[redacted]

This Memorandum of Understanding (MOU) outlines the terms and understanding between Carlana Coogle, a DNP student at Boise State University, and Boundary Community Hospital, to pilot an evidence based educational project with healthcare workers.

Background

Mental illness affects one in five adults every year according to the National Alliance on Mental Health (NAMH, 2017). Patients suffering from mental illness are at increased risk for suicide; 90% of those who commit suicide have an underlying mental illness (Suicide Prevention Action Network [SPAN], 2016). In 2015 Idaho ranked fifth highest in the United States for suicide; this is 57% higher than the national average (SPAN, 2016). The evidence suggests that healthcare workers (HCWs) have a lack of knowledge related to mental illness and often harbor negative stigmas and attitudes about mental illness. Boundary Community Hospital does not currently offer Question, Persuade, and Refer gatekeeper training; an established evidence based program designed to train individuals on how to: recognize the warning signs of suicide, know how to offer hope, and know how to get help and save a life. When mental health patients encounter HCWs who hold negative attitudes mental health patients are less likely to seek follow-up treatment or care (Clark, Usick, Sanderson, Giles-Smith, & Baker, 2014). Healthcare workers who are knowledgeable regarding mental illness provide optimal patient care.

Purpose

The purpose of this project is to raise awareness and improve healthcare workers' knowledge, attitudes, stigmas, and self-efficacy when interacting with patients having a mental illness or displaying suicidal risk factors. Healthcare workers have the ability recognize risk factors and provide referrals/resources when needed. The improved self-efficacy will be evident through the confidence in which the HCWs exerts control over their motivations, behavior, and social environments (APA, 2016).

Intended Project Outcomes

- Improve HCWs' knowledge, and attitudes about mental illness
- Improve HCWs' knowledge of suicidal risk factors, and behaviors
- Improve HCWs' self-efficacy with QPR process
- Increase HCWs' community support and participation with events and organizations that support mental health awareness

Duration

This Scholarly Project will begin in March of 2018 at Boundary Community Hospital and will end in April of 2019. The implementation phase for HCW training will occur May, 2018 through September, 2018.

Methods

A process/implementation evaluation method of a pilot education project designed to improve HCWs' knowledge and attitudes, while raising awareness of personal stigmas and biases thus improving their self-efficacy when caring for or interacting with patients whom display suicidal risk factors. The HCWs' will include any member of the healthcare team who interacts with patients in the hospital setting. The following surveys will be used: The Mental Illness: Clinicians' Attitude Scale (MICA-4) which measures attitudes and basic mental health knowledge, the Mental Health Knowledge Schedule (MAKS) which explores stigmas related to mental illness, and the Question, Persuade, and Refer (QPR) surveys which measure suicide knowledge and self-efficacy will all provide quantitative data to evaluate the project interventions.

The following will be the process for the participants:

1. Receive and choose to either respond or ignore the recruitment email. If participants choose to respond they will click the survey link provided in the email.
2. The participants will read and respond to the MICA-4 and MAKS survey and choose one of four dates to attend the 90 minute live training session (dates and times will be given)
3. Exactly four days after the completion of the MICA-4 and MAKS survey the participants will start to receive bi-weekly emails for six weeks. The emails will consist of a variety of questions, scenarios, facts, and will ask the participants to respond to the DNP student, the emails should take no more than 10 minutes to read and respond.
4. Participants will attend the one 90 minute classroom session in which they will receive QPR gatekeeper training and receive certification through the QPR institute; the training includes a pre and post survey.
5. Seven days after completion of the six weeks of emails and the QPR gatekeeper training participants will receive the MICA-4, and MAKS surveys and be asked six qualitative questions about their experience with the mental health training given in this project. They will also be entered to win a $ 50.00 Amazon gift card.

The data collection will be safeguarded within a secure data base with limited access, the software Research Electronic Data Capture (REDCap) will be used to administer all surveys and emails. REDCap is a secure web application used for building and managing online surveys and databases. After completion of the training and emails a post evaluation and summative assessment will be completed by measuring the change in survey scores for increased knowledge, attitudes changes, and increased self-efficacy toward suicide prevention.

Reporting

This DNP Scholarly Project will include a final report which will be submitted to Boise State University and will be published in ScholarWorks. ScholarWorks is a platform that showcases students' works at the University. The student will also submit this work for publication to a peer-reviewed journal. The final report will be presented at Boise State University in March of 2019.

No personal identifiers of the HCWs will be included and all reported data will be aggregated. The student will present all data and information in a professional manner and will uphold the highest academic standards with all work presented.

The student will agree to follow Boundary Community Hospital's preferences on how it would like to be named or referred to within the Scholarly Project.

Boundary Community Hospital would like to be referred to as:

In the student's Final Report? A critical access hospital in the Inland Northwest
In an abstract? A critical access hospital in the Inland Northwest
In professional presentations? A critical access hospital in the Inland Northwest
In professional publications? A critical access hospital in the Inland Northwest
Any restrictions in the discussion of project details? No

Student Contact Information

Carlana J Coogle Date: 2/14/18
(*DNP Student Signature*)
(*Carlana J Coogle*), Boise State University DNP student

Tari Yourzek Date: 2/14/18
(*Organizational Contact Signature*)
(*Tari Yourzek, Chief Nursing Officer, Boundary Community Hospital*)

Appendix G

Mental Illness: Clinicians' Attitudes Scale MICA-4

Note to researchers distributing this scale: please only use after reading instructions in "Manual for Researchers".

Instructions: for each of questions 1-16, please respond by **ticking one box only**. Mental illness here refers to conditions for which an individual would be seen by a psychiatrist.

		Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree
1	I just learn about mental health when I have to, and would not bother reading additional material on it.						
2	People with a severe mental illness can never recover enough to have a good quality of life.						
3	Working in the mental health field is just as respectable as other fields of health and social care.						
4	If I had a mental illness, I would never admit this to my **friends** because I would fear being treated differently.						
5	People with a severe mental illness are dangerous more often than not.						
6	Health/social care staff know more about the lives of people treated for a mental illness than do family members or friends.						
7	If I had a mental illness, I would never admit this to my **colleagues** for fear of being treated differently.						
8	Being a health/social care professional in the area of mental health is **not** like being a real health/social care professional.						
9	If a senior colleague instructed me to treat people with a mental illness in a disrespectful manner, I would **not** follow their instructions.						

We would like to thank Aliya Kassam for her major contribution to the development of this scale.
Contact: Professor Graham Thornicroft. Email: graham.thornicroft@kcl.ac.uk

Kassam A., Glozier N., Leese M., Henderson C., Thornicroft G. (2010) Development and responsiveness of a scale to measure clinicians' attitudes to people with mental illness (medical student version). Acta Psychiatrica Scandinavica 122(2), 153-161.

Mental Illness: Clinicians' Attitudes Scale — MICA-4

Note to researchers distributing this scale: please only use after reading instructions in "Manual for Researchers".

Instructions: for each of questions 1-16, please respond by **ticking one box only**. Mental illness here refers to conditions for which an individual would be seen by a psychiatrist.

		Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree
10	I feel as comfortable talking to a person with a mental illness as I do talking to a person with a physical illness.						
11	It is important that any health/social care professional supporting a person with a mental illness also ensures that their physical health is assessed.						
12	The public does **not** need to be protected from people with a severe mental illness.						
13	If a person with a mental illness complained of physical symptoms (such as chest pain) I would attribute it to their mental illness.						
14	General practitioners should **not** be expected to complete a thorough assessment for people with psychiatric symptoms because they can be referred to a psychiatrist.						
15	I would use the terms 'crazy', 'nutter', 'mad' etc. to describe to colleagues people with a mental illness who I have seen in my work.						
16	If a colleague told me they had a mental illness, I would still want to work with them.						

Thank you very much for your help.

Used with permission: King's College London (Appendix J)

Appendix H

Mental health knowledge schedule — MAKS

Instructions: For each of statements 1– 6 below, respond by ticking one box only. Mental health problems here refer, for example, to conditions for which an individual would be seen by healthcare staff.

		Agree strongly	Agree slightly	Neither agree nor disagree	Disagree strongly	Disagree slightly	Don't know
1	Most people with mental health problems want to have paid employment.						
2	If a friend had a mental health problem, I know what advice to give them to get professional help.						
3	Medication can be an effective treatment for people with mental health problems.						
4	Psychotherapy (eg talking therapy or counselling) can be an effective treatment for people with mental health problems.						
5	People with severe mental health problems can fully recover.						
6	Most people with mental health problems go to a healthcare professional to get help.						

Instructions: Say whether you think each condition is a type of mental illness by ticking one box only.

7	Depression						
8	Stress						
9	Schizophrenia						
10	Bipolar disorder (manic-depression)						
11	Drug addiction						
12	Grief						

Used with permission: King's College London (Appendix J)

Appendix I

QPR Pre-training Survey
SECTION I: Please provide the following information BEFORE the Gatekeeper Training. The anonymous information you provide will be used to assess the effectiveness of the QPR training.

1. Age (optional) _____

2. Gender (optional - check one): ☐ Male ☐ Female

3. Ethnicity (optional -- check one)

- ☐ **African American**
- ☐ **Asian American**
- ☐ **Caucasian**
- ☐ **Latino / Hispanic**
- ☐ **Native American**
- ☐ **Other: _____**

4. Highest grade completed (optional):

- ☐ **Junior High**
- ☐ **High School**
- ☐ **Trade/vocational school**
- ☐ **2 years of college**
- ☐ **4 years of college**
- ☐ **5+ years of college**

5. How would you rate your knowledge of suicide in the following areas?

a) Facts concerning suicide prevention:
☐Low ☐Medium ☐High

b) Warning signs of suicide:
☐Low ☐Medium ☐High

c) How to ask someone about suicide:
☐Low ☐Medium ☐High

d) Persuading someone to get help:
☐Low ☐Medium ☐High

e) How to get help for someone:
☐Low ☐Medium ☐High

f) Information about local resources for help with suicide:
☐Low ☐Medium ☐High

g) Do you feel that asking someone about suicide is appropriate?
☐Always ☐Sometimes ☐Never

h) Do you feel likely to ask someone if they are thinking of suicide?
☐Always ☐Sometimes ☐Never

i) Please rate your level of understanding about suicide and suicide prevention.
☐Low ☐Medium ☐High

ⓘ **STOP HERE. Please complete the <u>BACK</u> of this form when your instructor tells you to do so.**

QPR Post-training Survey

SECTION II. **Please complete this section AFTER the QPR training.**

1. Now that you have received the QPR Gatekeeper training, please indicate how you would rate your knowledge of suicide in the following areas?

a) Facts concerning suicide prevention:
☐Low ☐Medium ☐High

b) Warning signs of suicide:
☐Low ☐Medium ☐High

c) How to ask someone about suicide:
☐Low ☐Medium ☐High

d) Persuading someone to get help:
☐Low ☐Medium ☐High

e) How to get help for someone:
☐Low ☐Medium ☐High

f) Information about local resources for help with suicide:
☐Low ☐Medium ☐High

g) Do you feel that asking someone about suicide is appropriate?
☐Always ☐Sometimes ☐Never

h) Do you feel likely to ask someone if they are thinking of suicide?
☐Always ☐Sometimes ☐Never

i) Please rate your level of understanding about suicide and suicide prevention.
☐Low ☐Medium ☐High

2. Please provide your OVERALL rating of the quality of this training.

☐ Excellent ☐ Very Good ☐ Good

☐ Fair ☐ Poor

3. Would you recommend QPR training to others?
☐ YES ☐ NO ☐ Undecided

4. Comments:

_____

_____

_____

_____

_____

_____

THANK YOU

Used with Permission of the QPR Institute as a certified QPR instructor

Appendix J

Permission to use the MICA-4 and MAKS survey

KING'S College LONDON
University of London

Questionnaire to register use of the the KCL stigma and discrimination measures

Thank you for completing our survey!

To access the scales:
Return to http://www.indigo-group.org/stigma-scales/
Select the scale you with to use
Enter the password scalescmh

Please make a note of this password, and do not share it with anyone whose details have not been entered into this survey.

Done

Appendix K
Timeline

Activity	2/ 2017	3/ 2017	4/ 2017	5-6/ 2017	7/ 2017	8-9 2017	10 2017	11-12 2017	1/ 2018	2/ 2018	3-4 2018	5-6 2018	7-8 2018	9-12 2018	1-2 2019	3 2019	4 2019	5 2019
Assessment																		
Complete Literature Review																		
Complete synthesis of evidence and SWAT analysis																		
Meet with key stakeholders to review plan and gain approval and engagement with project																		
Planning &Development																		
Develop timeline and continue updating and revising																		
Develop Project Logic Model																		
Develop Project Goals and Outcomes																		
Choose Theoretical Framework for project design																		
Contact stakeholders to share idea and assess interest in project																		
Form educational team with mental health experts																		
Develop didactic material for both on-line modules, and live sessions																		
Choose validated tool to use for survey																		
Explore survey software that can be used to send and collect information																		
Intervention/Implementation																		
Present project and educational plan to Kootenai Health &Boundary Community Hospital																		
Identify survey tools that will be used to asses healthcare personnel																		
Executive Session presentation in Boise																		
Complete CITI training																		
Draft and submit proposal to receive IRB approval																		
Send out pre-survey assessment and schedule educational training																		

	2/2017	3/2017	4/2017	6/2017	7/2017	8-9 2017	10 2017	11-12 2017	1/ 2018	2/ 2018	3-4 2018	5-6 2018	7-8 2018	9-10 2018	11-12 2018	1-3 2019	4-2019	5-6 2019
Implement training at all Healthcare facilities																		
Send out post-survey assessment																		
Data Collection & Analysis																		
Collate all obtained data																		
Evaluate pre and post educational intervention data																		
Write up evaluation and finalize project details																		
Dissemination																		
GRADUATION!!!																		
Submit project to a conference as either a podium or a poster																		
Submit manuscript for publication																		

Appendix L
Outcome Evaluation Table

Outcome	Data Collection Instrument / Data	Analysis Goal	Analytic Technique
1. Evidence-based Mental Health Training consisting of one live classroom session and six weeks of bi-weekly emails is implemented at KH and BCH by May 2018.	**Methods:** Meet with CNO at BCH and Director of Professional Practice at KH to establish venue for mental health training and provide template for the training and the intended objectives. **Content:** 1. Question-Persuade-Refer (QPR) (QPR, 2011) training will be provided in both KH and BCH through live classroom sessions 2. Four, 90 min live session for QPR training will be scheduled at BCH and KH. 70 min minutes will be QPR and the remainder of time will be used for completions of surveys 3. Develop the email questions and/or case studies that staff will receive twice a week for six weeks after the QPR training. The questions will be taken from the QPR instructor guide.	1) Develop organizational objectives based on feedback from leadership at KH and BCH. 2) To quantify email answers based on the QPR guidelines for effective communication strategies.	Qualitative and quantitative data will be obtained by each participant at the completion of the training and a summary of this will be given to both hospitals.

2. Of the participants who agreed to participate in the Mental Health Training, 75% completed the training by September 1, 2018.
 	
HCWs will include nurses, physicians, nursing assistants, patient safety attendants, therapist (all disciplines), and mental health specialist.
	Methods: Training sessions will be set up for the HCWs' to attend within each organization. The sessions will be offered four times at each location, all sessions will offer the same education. Each session will start a new cohort. Each cohort will start receiving bi-weekly emails for six weeks after completion of the QPR training. After completion of week six the HCWs will receive post surveys.
	Data: A table will be created to track:
	• QPR attendance
	• Emails for each cohort 1-4 with start and stop dates for emails
	• Dates for follow-up surveys to be sent to participants
	• Email responses from each cohort
	• Demographic information obtained from the surveys
	  ○ Age
	  ○ Sex
	  ○ Years in healthcare
		1) To quantify the number and percentage of staff who participated in the training at each location.	A report will provide the data for a nominal count and percentage of staff who participated and completed the training.

	○ Role as Clinical or Non-Clinical staff ○ Education level		
3. After completing Mental Health Training by September 1, 2018, the HCWs at both locations showed a 10% improvement from pre to post-survey on the MICA-4, MAKS and QPR surveys. HCWs' showed a 10% improvement from pre-course to post course on the MICA-4, MAKS and QPR survey.	**Instruments:** Mental Illness Clinicians' Attitude Scale (MICA-4), Mental Health Knowledge Schedule (MAKS) and Question Persuade Refer (QPR) Survey will be utilized in a pre/post methodology. • The MICA-4 survey has 16 questions and uses a 6 point Likert scale from (strongly agree to strongly disagree) which measures attitudes and basic mental health knowledge (Kassam, Glozier, Leese, Henderson &Thornicroft, 2010). This tool has received endorsement by the National Institute for Health Research (NIHR). Scores are calculated for questions 3, 9, 10, 11, 12, and 16 on one scale and all other questions are in reverse. A higher score indicates a more negative (stigmatizing) attitude. • The MAKS survey has 12 questions and uses a 5 point Likert scale from (strongly agree to strongly disagree) this survey will explore stigma related mental health knowledge in the HCW. This tool was created by the same team as the MICA-4 and has established validity (Evans-Lacko, Little, Meltzer, Rose, Rhydderch…et al., 2010). This survey is comprised of six stigma-related mental health issues such as therapy, recovery, jobs, and six items which inquire about the knowledge of mental illness conditions such as depression, anxiety, and bipolar. MAKS is scored on an ordinal scale (1 to 5) and higher scores indicate knowledge and understanding of mental illness. • The QPR Survey developed by the QPR institute has seven questions and uses a seven point Likert scale from (strongly disagree to strongly agree). All questions are related to the participants' knowledge, comfort, and confidence in being able to question someone about suicide and being aware of suicidal warning signs. **Data:** Healthcare workers knowledge of mental illness, stigma, and attitudes related to those with mental illness. MICA-4 • Attitudes towards co-workers with mental	1) To quantify HCWs, attitudes and stigmas related to mental illness prior to and after an education intervention. 2) To compare the means, median, and mode of the pre and post surveys to evaluate the effectiveness of the Mental Health Training. 3) To quantify percentage of participants that responded to emails and compare respond rates with percentage of change on the MICA-4 survey and the QPR survey.	Descriptive statistics will be used to compare the pre and post means, medians, and modes for the MICA-4, MAKS, and QPR surveys. Also, relationships from the demographic data obtained on the QPR survey such as age, gender, and years in healthcare will be assessed for any associations and then presented in an aggregate manner.

	illness • Self-perception of mental illness • Importance of mental health providers • Recovery of mental illness • Respect for those with mental illness • Terminology for mental illness MAKS • Medication related to mental illness • Recovery of illness • Potential to seek treatment for mental illness • Therapy as treatment • Comfort in giving advise • Classification of mental illness (six disorders) QPR • Knowledge about suicide preventions • Ability to teach others to recognize signs of suicide • Beliefs about training and awareness • Comfort in recognizing suicide warning signs • Comfort in intervening with a suicidal person		
4. After completion of the Mental Health Training 60% of the participants complete the qualitative questions related to their experience and give feedback on the design and value the Mental Health training.	**Instrument:** The use of both quantitative and qualitative questions will guide the participants to reflect on the training. Questions: 1. What did you enjoy most about the mental health training? 2. Have you utilized the QPR training with someone since learning it? Yes or No If yes would you like to share anything? 3. Do you feel that this training should be required for all Healthcare workers? Or do you have suggestions for a selected group? 4. Do you have suggestions for improving for this training? 5. Did you find the information in the emails helpful? Yes or No Was there a particular email format you preferred?	1) To obtain participants' opinions and suggestions for future trainings. 2) Utilize the feedback information to improve program quality and share with stakeholders within each facility.	Both quantitative and qualitative data for the training will be extracted and comments will be complied and shared with key stakeholders.

	6. Out of the twelve emails how many do you think you responded too? **Data:** Healthcare workers' results will be collected in REDCap.		
5. Ten percent of the HCWs within the CH who participated attended a mental health community meeting or participated in a community mental health organization event as part of their Clinical Ladder that supports mental health from 06/2018-10/2018	Instrument: An audit sheet will be used for data collection of the clinical ladder books for all KH employees. Any audit which has community volunteer activities will be evaluated to see if the activity was associated with a mental health organization or event. Data: A spreadsheet will be created to monitor participation, event, and organization. Community organization track attendance and organizational affiliations with meeting minutes	1) To quantify HCWs ability to engage in community activities that support mental health and show a 10% improvement in volunteer activities from 2017 clinical ladder program to the 2018 clinical ladder program.	Report provides data with a nominal count of staff as well as the event participated in, hours spent at event, and if organizational membership was attained.

Appendix M

Qualitative questions that will be sent with the post-survey
The use of both quantitative and qualitative questions will guide the participants to reflect on the training.
Please complete the following questions by selecting the response that best fits your thinking OR write in a short response. Thank you for your time.
Questions:

1. **What did you enjoy most about the mental health training?**

2. **Have you utilized the QPR training with someone since learning it? Yes or No**
   If yes would you like to share anything?

3. **Do you feel that this training should be required for all Healthcare workers? Or do you have suggestions for a selected group?**

4. **Do you have any suggestions for improving for this training?**

5. **Did you find the information in the emails helpful? Yes or No**

7. **Out of the twelve emails how many do you think you responded to?**

Appendix N
IRB Approval

BOISE STATE UNIVERSITY
RESEARCH AND ECONOMIC DEVELOPMENT

Date: March 27, 2018

To: Carlana Coogle cc: Pam Gehrke

From: Office of Research Compliance (ORC)

Subject: SB-IRB Notification of Exemption - 187-SB18-063

Awareness Matters: Improving Healthcare Workers' Self-Efficency, Knowledge, Skills and Attitudes related to Mental Illness and Suicide Prevention

The Boise State University ORC has reviewed your protocol application and has determined that your research is exempt from further IRB review and supervision under 45 CFR 46.101(b).

Protocol Number: 187-SB18-063
Approved: 3/27/2018 Application Received: 3/5/2018
Review: Exempt
Category: 2

This exemption covers any research and data collected under your protocol as of the date of approval indicated above, unless terminated in writing by you, the Principal Investigator, or the Boise State University IRB. All amendments or changes (including personnel changes) to your approved protocol must be brought to the attention of the Office of Research Compliance for review and approval before they occur, as these modifications may change your exempt status. Complete and submit a Modification Form indicating any changes to your project.

Annual renewals are not required for exempt protocols. When the research project is completed, please notify our office by submitting a Final Report. The exempt status expires when the research project is completed (closed) or when the review category changes as described above.

All forms are available on the ORC website at http://goo.gl/D2FYTV

Please direct any questions or concerns to ORC at 426-5401 or humansubjects@boisestate.edu.

Thank you and good luck with your research.

Office of Research Compliance

1910 University Drive Boise, Idaho 83725-1139
Phone (208) 426-5401 orc@boisestate.edu

Appendix O

CITI PROGRAM

Completion Date 03-Jul-2017
Expiration Date 02-Jul-2020
Record ID 23328446

This is to certify that:

Carlana Coogle

Has completed the following CITI Program course:

Human Research (Curriculum Group)
Social & Behavioral Researchers (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

Boise State University

CITI

Verify at www.citiprogram.org/verify/?wf82d1e56-a452-463b-ad5c-a3542dac32b2-23328446

Appendix P

Expense Report

Source of Expense	Expense Description	Dollar Value	Type of Cost (fixed or variable)	Description of Cost	Estimated Volume	Expense Per Unit
Staff/Personnel						
	Education to become a facilitator of QPR	495.00	Fixed	Training costs include: Tuition	1	$495.00/ attendee
		100.00	Fixed	Training materials	1	$100.00/attendee
						Subtotal= 595.00
Administrative Supplies & Equipment						
	Printer cartridges, paper, handouts for classes, folders	200.00	Variable	Supplies to print handouts	1	$200.00 /4 sessions
	Snacks for Sessions	25.00	Fixed	Snacks provided through dietary services	4	100.00/4 sessions
						Subtotal= 300.00
Facilities (In-Kind)						
	Meeting rooms at both facilities where training will be conducted	1000.00 *(In-Kind)*	Fixed	KH- Classroom 2 for 5 total hours BCH- Conference Room A for 5 total hours • Room rental costs include: Video/A/V equipment Classroom style set-up for max of 30 people	10	10.00/hr 500.00 for KH *(In-Kind)* 500.00 for BCH *(In-Kind)*
						Subtotal= 1000.00 *(In-Kind)*
Training for Participates						
	Kootenai Health	1500.00 *(In-Kind)*	Variable	Training of healthcare personnel at KH and BCH	30	30.00/hr KH- 900.00
					20	BCH-600.00

	Boundary Community Hospital					
						Subtotal= 1500.00 *(In-Kind)*
Hospital Personnel						
	Salary for KH educator	525.00	Fixed	Training time for each facility contact to implement training	15hours	35.00/hr
	Salary for BCH educator	525.00			15 hours	35.00/hr
						Subtotal= 1050.00
Travel Expenses						
	Travel Expenses to BCH from KH for project lead	243.00	Variable	Mileage reimbursement	540 miles	.45/mile
						Subtotal=243.00 (In-kind)
Guest speakers						
	SPAN and NAMI contacts to present at KH	Voluntary	Fixed	Community contact information	1	$0
Community Members						
	Volunteers to speak with staff and share story (gift card for thank you)	75.00	Fixed	Gift Card for volunteers	3	25.00/gift
						Subtotal= 75.00
Evaluation/Assessment						
	MICA-4 and MAKS tools	Free	Fixed	Survey methods	1	$0
Statistical Analysis						
	Statistician support for data analysis	150.00	Fixed	Data Analysis of the MICA-4 and MAKS survey	2	75.00/hr
						Subtotal= $150.00
Marketing & Advertising Flyers						

	Flyers and handouts from community partners	50.00	Variable	Community organization flyers	2	25.00/organization Subtotal= 50.00
REDCap Assistance						
	Survey implementation	105.00	Fixed	Building of survey within the REDCap system, consult with WSU team member	3	35.00/hr Subtotal =$105.00
Information Technology						
	IT support at KH IT support at BCH	88.00	Fixed	Obtaining HCWs email as a list formatted for REDCap	2 2	22.00/hr 22.00/hr Subtotal= $88.00
Project Management Salary						
	Salary for program coordinator	1350.00	Variable	Setting up contacts at facilities, arranging QPR training, gaining participants, and collecting surveys etc.	30 hours	45.00/hr Subtotal=$1350.00
	Sub Total ***In Kind Support*** ***Grand Total***					$6194.00 $3243.00 $2,951.00

Appendix Q

Statement of Operations		
Mental Health Training Program-2018		
Budgeted Expenses		
QPR Instructor Training	500.00	
QPR booklets, certificates	100.00	
Facilities	200.00	
Travel Cost CAH	200.00	
Statistical Analysis	100.00	
Gifts for Survey Completion	100.00	
Marketing and Advertising	100.00	
	Total	***3100.00***
Actual Expenses		
QPR Instructor Training	500.00 (in-kind)	
QPR training materials	300.00 (in-kind)	
Initial first year staff education (small sample)	2,000.00 (in-kind)	
Travel Cost to CAH	315.00 (in-kind)	
Facilities	500.00 (in-kind)	
Administrative Supplies & Equipment	200.00 (in-kind)	
Project Management Salary	2200.00 (in-kind)	
Marketing & Advertising	100.00	
Statistical Analysis	150.00	
	Sub-Total	**$6265.00**
	In Kind support	-6015.00
	Total	**$250.00**
Operating Income		***250.00***

Appendix R

3-Year Budget Plan

Mental Health Training				
Revenues	**Budget Year 1**	**Budget Year 2**	**Budget Year 3**	**Rationale**
Nursing Administration (General Orientation)	15,000	18,000	18,000	Will increase general orientation by 90 minutes for all clinical staff Budget Yr1 in progress will complete half clinical staff, and finish in Yr2, then resume as this education will be incorporated into general orientation by year 3
Nursing Administration (Staff Education)	10,000	10,000	8,000	
Total	***25,000***	28,000	26,000	
Expenses				
QPR Instructor training (Initial start-up)	500.00	500.00	500.00	This is the cost for one new instructor training yearly and apply for grant for additional instructors through hospital foundation.
QPR training material (2nd year)	1125.00	1125.00	335.00	750 training booklet YR 1&2 and 500 booklets YR 3
Staff Education Initial and on-going Training	22,500	22,500	15,000	750 clinical staff YR 1&2, 500 clinical staff for YR 3
Statistician Evaluation Salary (1st & 2nd year)	400.00	400.00	0	100.00/hr contracted rate through 2019 with Washington State University. Will continue surveys with all employees for 2 year period

Survey evaluations and data entry (Project Manager)	2,700.	2,700.	0	5hours/month @ 45.00/hr The community partners will provide resources for staff and establish relationship so that staff has knowledge of opportunities to volunteer to gain points for the Clinical Ladder Program.
Community Mental Health Organizations	200.00	200.00	250.00	Community organization will supply flyers and brochures for their organizations.
Total	***27,425***	***27,425***	***16,085***	
Operating Income	***27,425***	***27,425***	***16,085***	