GENERALIST NURSES CARING FOR PATIENTS WITH MENTAL ILLNESS IN A NON-PSYCHIATRIC SETTING

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A dissertation submitted to the faculty at the University of North Carolina at Chapel Hill in partial fulfillment of the requirement for the degree of Doctor of Nursing Practice (Health Care Systems), in the School of Nursing.

Chapel Hill
2018

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ABSTRACT

Paula Bird: Generalist Nurses Caring for Patients with Mental Illness in a Non-Psychiatric Setting
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Purpose: The purpose of this project was to describe an educational intervention that improves the attitudes and self-perceived knowledge and competences of generalist nurses caring for patients with acute psychiatric needs. **Summary of the Evidence:** There are two critical shortages impacting the mental health care of our nation: the availability of inpatient psychiatric beds, and the limited mental health workforce to provide care. Taken together, patients needing mental health care are often boarded in general hospitals and receive care by generalist nurses who are ill equipped to provide the necessary care. **Description:** A 6-hour continuing educational intervention targeting generalist nurses was developed and taught by an experienced psychiatric clinical nurse specialist. Evidence-based guidelines that focused on nursing competencies and improving nurses' attitudes were used as part of the program development. **Evaluation:** Outcomes were measured using the Behavioral Health Care Competency and the Opening Minds Scale for Health Care Providers. The instruments were administered immediately pre- and post-educational session, and at 4 weeks post-educational session. **Relevance:** The analysis found that participants had significantly higher self-perceived behavioral health competencies and improved attitudes (reduced negativity toward mental illness) immediately after the education. Further, the results were sustained 4 weeks post education, after nurses had an opportunity to put what they learned into practice. **Implications:**

A 6-hour educational intervention can positively impact the competencies and attitudes of generalist nurses caring for patients in non-psychiatric settings, and these impacts can last for up to 4 weeks. Patients with mental health needs who are admitted to a non-psychiatric setting will benefit from the training generalist nurses receive to improve the nurses' attitudes and competencies in providing care to this population. Further work is needed to determine whether or not the impacts are longer lasting. Nursing leaders may want to consider having similar training for nurses providing care at the bedside to assure their staff have the necessary skills to care for all patients in a holistic manner.

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CHAPTER 1

INTRODUCTION

There are two critical shortages impacting mental health care in the United States (US): the limited availability of inpatient psychiatric beds, and the lack of an adequate mental health workforce to provide care. Between 2010 to 2016 (Fuller, Sinclair, Geller, Quanbeck, & Snook, 2016), there was a 17% reduction in the number of inpatient psychiatric beds, and a 96.5% drop from the peak number in the 1950s (Torrey, Fuller, Geller, Jacobs, & Ragosta, 2012). Today, there are 11.7 inpatient psychiatric beds per 100,000 in the U.S. (Fuller et al., 2016). This is the lowest number of beds per capita in the US since before mental illness was considered a crime over a century ago (Torrey et al., 2012). This critical shortage of state psychiatric beds is forcing individuals with mental illness, and particularly those with severe symptoms, to either not seek help or to seek care in emergency rooms or hospitals while they wait for an inpatient bed, and sometimes these individuals must wait for weeks. One study found that 70% of emergency rooms needed to board patients experiencing mental illness for more than 24 hours and 10% for a week or more (Zun, 2012).

The state of North Carolina (NC) is no different. Despite a 25% increase in the state's population from 2000 through 2014, the number of in-state, inpatient psychiatric beds decreased by 50% during the same time period (Richard, 2014). La et al. (2016) determined that 39 psychiatric beds per 100,000 people are needed in NC to reduce the time people wait in emergency departments for a psychiatric bed, from 3.3 days to less than 24 hours. In Wake County (the Raleigh area), the population is growing by 64 people a day and is projected to be

the fastest growing in the U.S. over the coming decade (United States Census Bureau, 2010). Wake County has 237 psychiatric hospital beds, which by La's calculation only meets 60% of the need for inpatient psychiatric beds.

Individuals living with mental illness also are more likely to have chronic medical conditions compared to the general population (Edward, Felstead, & Mahoney, 2012; Scott et al., 2012; van der Kluit & Goossens, 2011). These comorbidities, in turn, bring about a decreased life expectancy of 10 years on average (Walker, McGee, & Druss, 2015). Lally et al. (2015) found a high rate of general hospital utilization by individuals who are admitted as a patient experiencing mental illness to an acute care facility. Their study found that 10.4% of inpatients experiencing mental illness were admitted to a general hospital and 12% were seen in the emergency department for non-mental health medical needs. This finding suggests that many patients with mental health needs also need treatment in non-psychiatric settings (i.e., acute care, home health, or primary care settings).

The psychiatric healthcare workforce, and more specifically, nurses specializing in psychiatric mental health nursing, is insufficient to meet demand for care and treatment to individuals with mental illness. Carnevale (2015) estimated there will be 1.6 million job openings for all nurses by 2020. Of those, 193,000 registered nurse (RN) positions will go unfilled because of a national shortage (Carnevale, 2015). In 2015, the vacancy rate for all RNs in hospitals was 8.5%, which is an increase of 1.3% compared to 2014 (Nursing Solutions, 2016). More concerning, over a third of hospitals in 2015 had a vacancy rate greater than 10%. In contrast, the vacancy rate in 2012 was 4.8% (Nursing Solutions, 2016). Nursing Solutions (2016) also reported that nurses working in mental health had the highest turnover rate: 26.5% in 2015 compared to the average of 17.2% for all nursing specialties. The National Council for

Behavior Health (2017) also reported workforce, including mental health psychiatric nurses and psychiatric nurse practitioners, that was inadequate to deliver safe and effective care to patients in inpatient and outpatient settings. Psychiatric and substance abuse hospitals employ 16.13% of the nursing workforce (United States Department of Labor, 2016). Per the United States Department of Labor (2016), psychiatric settings pay nurses less than all other high concentration health care settings except home health. The low pay may partially explain the shortage of psychiatric mental health nurses.

North Carolina's shortage of nurses mirrors the U.S. trend. The U.S. Department of Health and Human Services (2014) estimated North Carolina's overall nursing shortage to be 121,000 for 2015. The North Carolina Board of Nursing's Licensure Statistics (2017) reports only 4% of the RN nursing workforce is practicing in psychiatric/mental health/substance abuse settings.

Taken together, the lack of psychiatric inpatient beds and nursing staff specializing in mental health, means that individuals needing acute care for their mental illness are often boarded in general hospitals, receiving care by generalist nurses who are ill equipped to provide the necessary care. General hospitals and other non-psychiatric settings, as well as the nurses working in these settings, have been required to care for those who need care for mental illness. As access to mental health services becomes more and more limited, individuals needing care are turning to other settings to get their needs met.

Generalist nurses, defined by the American Association of Colleges of Nursing as nurses that provide "…direct care of the sick in and across all environments, health promotion and clinical prevention, and population-based health care", are the backbone of the nursing profession (2008). The preparation of generalist nurses is often lacking in the management of

both the mental health and medical health needs of individuals living with serious mental illness in a non-psychiatric hospital setting, and the challenges are immense. Some of the challenges include factors such as nurses' perceptions related to the stigma of caring for patients with mental illness; nurses' fear, anger, tension, and discomfort of caring for patients with mental illness; and nurses' lack of professional satisfaction, which may lead to patients receiving suboptimal care and being discriminated against (van der Kluit & Goossens, 2011; C. Zolnierek & Clingerman, 2012). Giandinoto and Edward (2014) found that generalist nurses caring for individuals with mental illness in a non-psychiatric hospital experience fear, negative attitudes and poor mental health literacy. They also have difficulty being positive and optimistic in providing care, and identified the acute care hospital environment as being a challenge in providing appropriate care to these patients. Rutledge et al. (2013) found that nursing staff in general hospitals lacked confidence to intervene or care for patients experiencing a behavioral health crisis. Further, Rutledge and colleagues found this lack of confidence was related to the nurses' perception that they needed additional education in intervening and providing medication management with this patient population.

Practice Question

Do generalist, non-psychiatric prepared RNs have improved attitudes, knowledge and competencies following receipt of an educational intervention that includes providing an opportunity to hear from individuals living with mental illness, and specific educational content including; a) improving knowledge of common symptoms of mental illness, b) learning nursing strategies to effectively assess, intervene and communicate with patients living with mental illness, c) and improving knowledge of common psychotropic medications.

Purpose

The purpose of this project was to develop and implement a mental health educational intervention for RNs working in non-psychiatric settings who care for patients with mental illness. The intervention took place at WakeMed (WM), with RNs who voluntarily registered for and agreed to participate in a 6-hour course, with 5 continuing education units (CEUs). Two classes were conducted. Participants completed a pre- and post-questionnaire that assessed their self-perceived competencies in caring for patients with mental health needs, and their stigmatizing attitudes toward people with mental illness. They were again surveyed four weeks later, after they had an opportunity to put their learning into practice, to assess the impact of the training. The goals of the program were to improve nurses' self-perceived competencies in caring for patients with mental health problems, and decrease nurses' stigmatizing attitudes toward patients with mental illness.

Chapter Summary

This chapter highlighted the limited number of resources, both inpatient psychiatric hospital beds and providers that are available to individuals who are suffering with mental illness and need access to services. As a result, individuals in need of emergent or urgent psychiatric care are seeking services from general hospitals and emergency departments by nurses who are ill prepared to provide the care required for someone in the midst of a psychiatric crisis. There is a need for generalist nurses to become more comfortable and competent when caring for this vulnerable population. The next chapter will discuss the literature that supports this need.

CHAPTER 2

REVIEW OF THE LITERATURE

Chapter Introduction

This chapter will review the current literature on the perceptions of nurses regarding their attitudes and competencies toward caring for individuals with mental illness and whether education can change or improve the attitudes, knowledge and competencies of nurses who care for these individuals. The following are included in this chapter; the search strategy, the results of the Preferred Reporting Items for Systematic Reviews for Meta-Analysis (PRISMA) and the key themes that emerged from the review. The search strategy will be the first discussed.

Search Strategy

An initial literature review was done to determine the perception of generalist RNs in non-psychiatric settings about their competencies and attitudes toward patients they care for who have acute mental illness and whether additional training in mental health impacted their perceptions. The review was conducted using the following databases available at the University of North Carolina at Chapel Hill's Health Science Library: PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL) and PsycINFO. The platform provider was EBSCO. The search was conducted looking at studies published from 2011 to February 2017 and was limited to studies in English and on human subjects. The subject terms for these databases were searched for the key words: nurse AND perception AND mental illness OR psychiatric illness AND experience AND clinical competence.

Studies were included in the review if they were published between January 2011 to February 2017, to assure the most up to date research was reviewed, and addressed attitudes, perceptions and/or experiences of generalist nurses caring for patients with psychiatric illness in a non-psychiatric setting and/or contained outcomes related to the effects of education on generalist nurses' attitudes and perceptions. Studies were excluded if the population studied was exclusively psychiatric clinicians, nursing students, faculty or the evaluation was solely focused on medical care, to ensure that generalist nurses were the focus of study.

A total of 1244 studies were identified of which 197 were duplicates. Thirty one additional studies were found through a snowball, grey literature and hand search. A review of the title and abstracts was used to eliminate studies not relevant to this project. The remaining 1078 studies were screened using the exclusion criteria. Of those, 972 were excluded and 106 studies were selected for full text review. Thirteen of these studies met the inclusion criteria. Figure 1 demonstrates the process used using the PRISMA guidelines.

To better understand educational efforts or interventions to train generalist nurses without mental health training, a second literature review was conducted using the same key words as the first search, with the keyword "education" added. This search yielded 57 results in CINAHL, 62 in PsycINFO and 189 in PubMed. The results were reviewed using the same inclusion and exclusion criteria as the first review. A total of nine additional studies were identified for full review. Five studies met the inclusion criteria and had been identified as part of the final 13 studies in the initial search. Figure 2 demonstrates the process used, using PRISMA for the second search.

Figure 1. Initial Search PRISMA
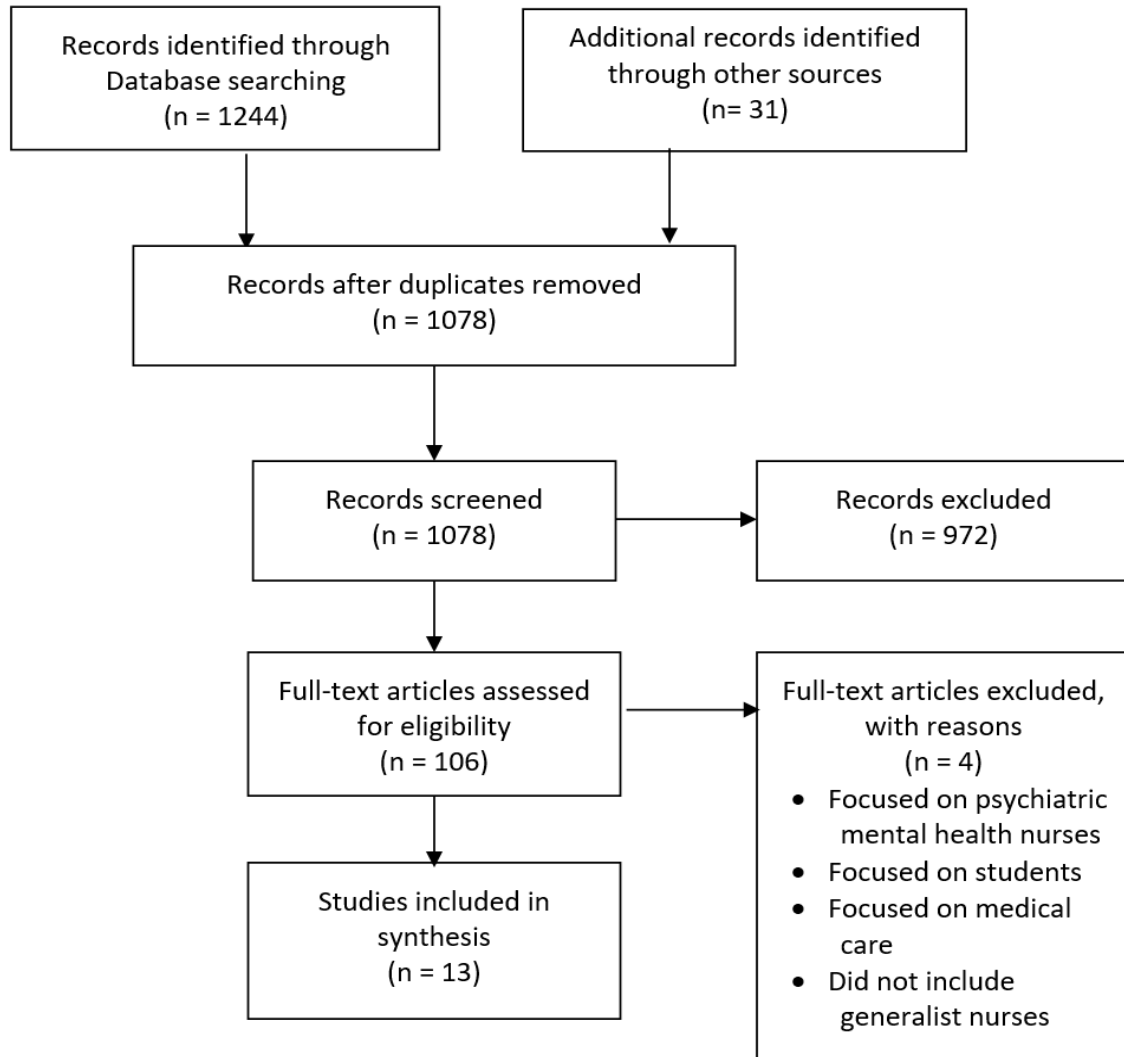
Figure 2: Second Search PRISMA Including the Key Word "Education"
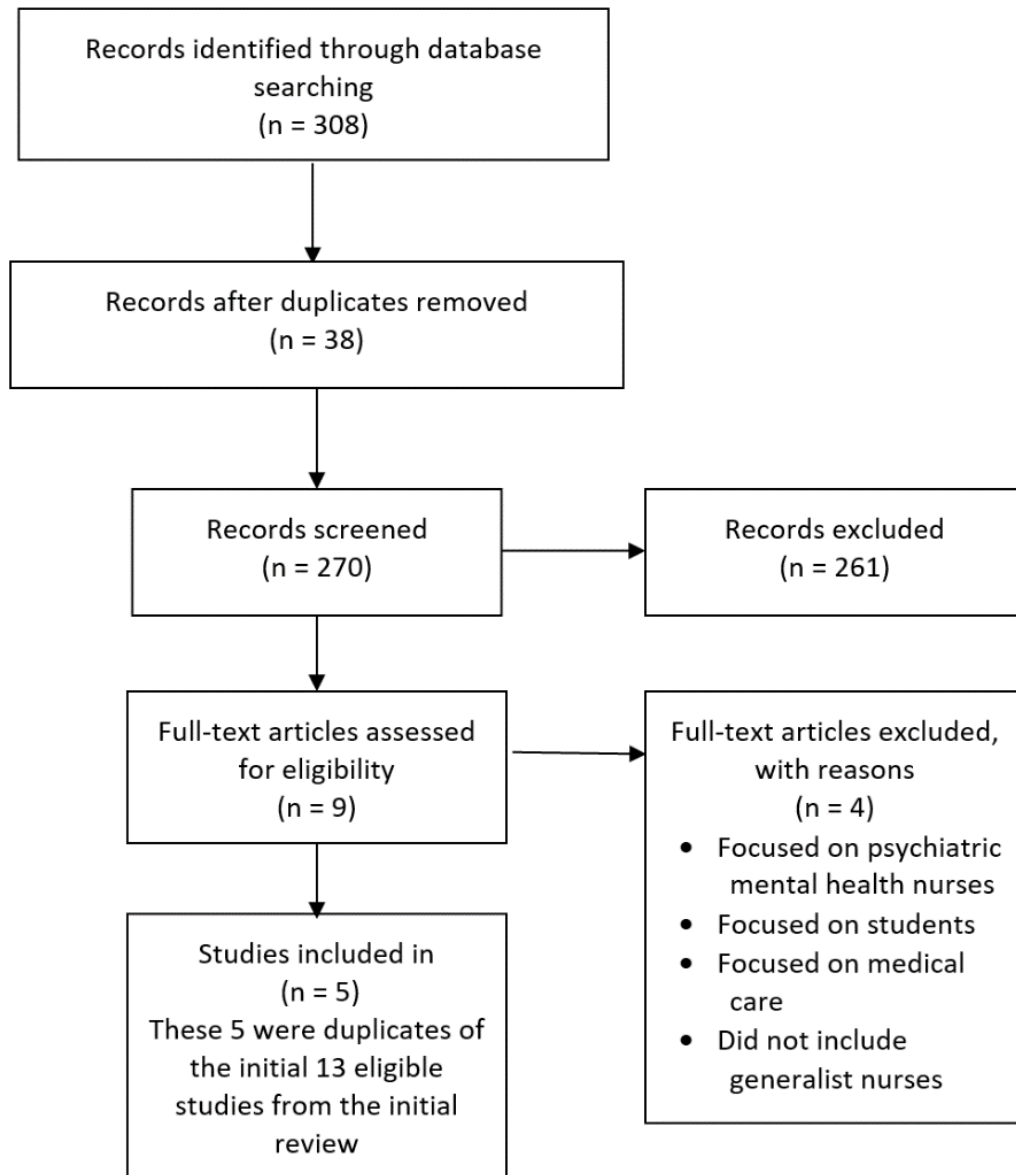
Review of Studies

Six of the 13 studies were qualitative studies (Giandinoto & Edward, 2015; Grant, Keltner, & Eagerton, 2011; Huggins, 2016; MacNeela, Scott, Treacy, Hyde, & O'Mahony, 2012; van der Kluit, Goossens, & de Leeuw, 2013; C. Zolnierek & Clingerman, 2012). Of these, three were conducted in the United States (Grant et al., 2011; Huggins, 2016; C. Zolnierek & Clingerman, 2012), and one each in, Australia (Giandinoto & Edward, 2015), the Netherlands or Ireland (MacNeela et al., 2012; van der Kluit et al., 2013).

The remaining seven studies were reports of various types of literature reviews: one was a narrative, qualitative review which summarizes a number of studies and develops a single conclusion (Arboleda-Flórez & Stuart, 2012), two were integrated reviews (Brunero, Jeon, & Foster, 2012; van der Kluit & Goossens, 2011), three were general reviews of the literature (Alexander, Ellis, & Barrett, 2016; Giandinoto & Edward, 2014; Karman, Kool, Poslawsky, & van Meijel, 2015), and one was a meta-analysis review (Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012).

Themes

The themes from the studies fall into two broad categories: attitudes and perceptions, and knowledge and competencies related to generalist nurses caring for individuals with mental illness. Eight studies focused on nurses' perceptions or attitudes about caring for individuals with mental illness (Alexander et al., 2016; Giandinoto & Edward, 2014, 2015; Karman et al., 2015; MacNeela et al., 2012; van der Kluit et al., 2013; van der Kluit & Goossens, 2011; C. Zolnierek & Clingerman, 2012), and five studies focused on nurses' ratings of competency and knowledge related to caring for individuals with mental illness (Arboleda-Flórez & Stuart, 2012;

Brunero et al., 2012; Corrigan et al., 2012; Grant et al., 2011; Huggins, 2016; Patten et al., 2012). Five studies discussed the impact of an educational intervention on attitudes and perceptions (Brunero et al., 2012; Grant et al., 2011), knowledge and competencies (Arboleda-Flórez & Stuart, 2012; Corrigan et al., 2012), or both (Huggins, 2016). All studies reviewed discussed findings based on one or both of the categories, and included further breakdown on these themes. The summary of the literature review, including themes is included in Appendix A.

Perception and Attitude

Attitude and perception are different, but they are intrinsically linked. The Compact Oxford English Dictionary (1991) defines attitude as, "settled behavior or manner of acting, as represented by feeling or opinion" and perception as "the intuitive or direct recognition of a moral or aesthetic quality." More simply put, attitude is about behavior and perception is about feeling. To find out participants' attitudes and perceptions, researchers used one of two methods; interviews (Giandinoto & Edward, 2015; MacNeela et al., 2012; C. Zolnierek & Clingerman, 2012), or questionnaires (Huggins, 2016; van der Kluit et al., 2013). All of these studies examined the attitudes and perceptions of RNs about caring for patients with a mental illness.

There were three reviews of the literature that examined attitudes and perceptions; Alexander et al. (2016), Giandinoto and Edwards (2014), and Karman et al. (2015). All articles reported that clinicians (nurses, physicians, and/or psychologists) held negative attitudes and/or perceptions of patients with mental illness or substance use disorders regardless of the clinicians' age, gender, marital status, ethnicity or religion (van der Kluit & Goossens, 2011) or profession. Further, all articles recommended education on mental illness as a potential solution to counteract the negative stereotypes non-psychiatric clinicians display or harbor when caring for people with mental illness.

Generalist nurses who work outside mental health facilities frequently describe patients with mental illness as being challenging and unpredictable, and posing a danger to staff (Alexander et al., 2016; Giandinoto & Edward, 2014, 2015; C. Zolnierek & Clingerman, 2012). Giandinoto and Edward (2014) reviewed 25 articles published between 1985 and 2013 to investigate the challenges of professionals caring for patients with mental illness in a non-psychiatric acute care setting and found that health professionals expressed fear, negative attitudes toward patients with mental illness, and concerns about the stigma (i.e., shame or disgrace) towards individuals with mental illness were common. These attitudes existed despite mental health being included in formal nursing education.

Similarly, in a review of the literature reported by Karman et al. (2015), nurses' negative attitudes toward patients who were likely to or had engaged in self-harm behaviors were common, with 10 out of the 15 articles noting this concern. Karman and colleagues completed a review of the literature on the factors that contribute to nurses' attitudes toward patients who self-harm. The authors reviewed fifteen studies that focused on a variety of health care professions; including generalist, emergency and psychiatric mental health nurses, social workers and other "qualified health care professionals." Karman et al. found that while the literature shows negative attitudes are common among nurses, the studies were inconclusive on how basic demographics, such as nurses' age, gender, education level or work experiences, affected their attitudes. However, the authors did find that the specialty/qualification of the nurse appeared to influence attitude: psychiatric mental health nurses held more positive attitudes toward patients who self-harm than generalist nurses.

A descriptive study by MacNeela et al. (2012) explored the attitudes of 13 generalist nurses working in a general hospital towards patients with mental illness. The authors conducted

a think-aloud decision-making task and critical incident interview based on two patient simulations. Using this approach, they asked nurses to respond to simulations as they would during an actual patient encounter. They found that the nurses were more focused on pragmatic aspects of care, such as maintaining patient safety and providing directives to patients (e.g., setting limits), rather than focusing on patient-centered aspects of care, such as providing reassurance and encouragement, actively listening to patients, and using therapeutic communication skills, and viewed patients with mental illness more from an attitude of being at risk for self-harm or harming others and difficult to manage in clinical situations, rather than as vulnerable individuals who are in distress.

Factors that influence the attitudes of nurses caring for patients with mental illness have also been explored. Giandinoto and Edward (2015) conducted semi-structured interviews with six generalist nurse participants and then completed a thematic analysis of the interview data. The authors found that two of the six themes reported to negatively impact nurses' attitudes were environmental and organizational factors. The physical care environment of an acute care hospital was not seen as conducive for providing mental health care; it was seen as unsafe and riddled with potential patient safety risk hazards. In another review of the literature, van der Kluit and Goossens (2011) found that being older, having a supportive work environment where employees can voice their concerns, and a holistic vision of nursing were positively related to nurses' attitudes about caring for patients with mental illness in a non-psychiatric setting. In a cross-sectional study that explored the perceptions of rehabilitation nurses' attitudes of working with patients with mental illness, van der Kluit et al. (2013) found that nurses' attitudes were influenced by feelings of competence and their prior experiences caring for patients with mental illness.

In summary, generalist nurses hold certain attitudes and perceptions about patients with mental illness that may affect their willingness and ability to care for patients with mental illness in the general acute care setting. These attitudes and perceptions include fear of patients' behavior and unpredictability, their own poor mental health literacy, a lack of self-perceived competencies in caring for those with mental illness, and held negative attitudes, including stigma, toward individuals with mental illness. Individuals experiencing mental illness will always be part of the cadre of patients generalist nurses provide care to. Therefore, it is essential that nurses' perceptions and attitudes of are addressed, and that specific strategies are used to change them. Doing so will help to ensure that patients with mental illness cared for in general hospital areas receive the care and treatment they need, and that the generalist nurses providing care are willing and competent to deliver the care these patients need.

Knowledge and Competency

Four of the 13 studies examined nurses' knowledge of and competency in caring for patients with mental illness focused on the reduction of stigma associated with individuals, including nurses, who interact with or care for people with mental illness (Arboleda-Flórez & Stuart, 2012; Corrigan et al., 2012; Griffiths, Carron-Arthur, Parsons, & Reid, 2014; Huggins, 2016). Additionally, one study explored the impact of the use of simulations to enhance nurses' competencies (Grant et al., 2011), and one reviewed the impact of mental health education on the competencies of generalist health professionals (Brunero et al., 2012). All studies found value in providing education to clinicians; two of these were quantitative, randomized controlled trials, thus representing the "gold standard" in assessing the quality of evidence (Papish et al., 2013; Patten et al., 2012). There was also a lack of evidence on the sustainability of the positive impact that education may have on clinicians over time.

Using attribution theory, Corrigan et al. (2001) looked at three strategies for changing attributions about severe mental illness: education (providing accurate information to replace myths about mental illness), contact (providing direct interactions to people with mental illness to challenge public attitudes), and protest (suppressing stigmatizing attitudes about mental illness). They found that education improved clinicians' attributions about mental illness, and that contact improved clinician attributions more than education for the diagnoses of depression and psychosis; protest however did not change attribution.

The studies that examined education as an intervention found education to have a beneficial impact on nurses' perceptions of the stigma associated with mental illness. Corrigan et al. (2012) reviewed 72 studies from 14 countries and included a total of 38,364 participants, including health care professionals, secondary education students, elementary education students people with mental illness and the general public. The authors looked at three common approaches to changing stigma: education (public service announcements, books, videos, classes, etc.), interpersonal contact with people living with mental illness (via videos or face-to-face), and protest (social activism campaigns). They found that education and personal contact had a positive, albeit small effect ($d = 0.286$ and 0.282 respectively, $p < 0.001$) on reducing stigma against adults and adolescents with mental illness, but personal contact ($d = 0.363$, $p < 0.001$) reduced perceptions of stigma in studies of adults more than education ($d = 0.153$, $p < 0.01$). For adolescents, the opposite was true; education ($d = 0.392$, $p < 0.001$) was more effective than personal contact ($d = 0.244$, $p < 0.001$) in reducing perceptions of stigma. The review found that face-to-face contact with a person living with mental illness and not the story conveyed by listening and watching a video had the greatest impact ($d = 0.401$, $p < 0.001$) in reducing

adolescents' attitudes about stigma. Protest did not have an impact ($d = 0.099$) on reducing

stigma for either group.

A meta-analysis (Griffiths et al., 2014) on the effectiveness of reducing stigma associated

with mental disorders, reported results for 19 studies ($n = 6,318$) that examined the personal

stigma or social distance of the general public, athletes, secondary education students, health care

professional and teachers plus others. They found results similar to Corrigan's study: both

education ($d = 0.330$, 95% *CI*, $p < 0.001$) and personal contact ($d = 0.470$, *CI* 95%, $p < 0.001$)

were effective in reducing stigma. They also found that internet programs were just as effective

as face-to-face interventions in reducing stigma. However, the authors cautioned that more

research was needed because they did not focus on the stigma associated with different disorders,

which they considered a limitation of their study.

The remaining studies focusing on stigma examined various approaches to reduce stigma

and its impact. Arboleda-Florez and Stuart (2012) identified six evidence-base approaches to

decrease stigma. In addition to those reported by Corrigan et al. (2012) and Griffiths et al.(2014)

(education, contact and protest), the authors identified three other approaches to decrease stigma:

1) legislative reform, 2) advocacy, and 3) stigma self-management. They determined that stigma

is an issue for health care providers and those health care providers are often part of the problem.

However, based on their narrative review of the literature, the authors surmised that all six

approaches may be more or less effective in disrupting the process of stigmatization that occurs

between clinicians who may or may not provide care to patients with mental illness. In another

study, Brunero et al. (2012) reviewed the evidence of mental health education and its impact on

general practitioners. They reported that education provided to nurses and interdisciplinary

teams, including a supervised clinical experience, role play and case scenarios, was more

effective used in combination than separate, isolated interventions. They also identified barriers to implementing educational programs, which included a lack of interest and/or motivation on the part of clinicians who work in general clinical areas outside of a psychiatric setting, and the time constraints to attend training.

One study reviewed the use of simulation to improve the competencies of clinical staff. Grant et al., (2011) described how the Veterans Health (VA) Administration developed a simulation program focused on mental illness after the Birmingham VA Medical Center and the Alabama Birmingham School of Nursing collaborated on a VA Nursing Academy grant that allowed them to expand their mental health simulations to include generalist nurses on the medical-surgical units. The clinical nurses and faculty worked to develop simulated mental illness scenarios to be used in educating practicing nurses. The authors identified three major health systems that developed simulation approaches to augment competency training for mental health; Virginia Commonwealth, Oregon Health and Science University and New York University School of Medicine. The types of simulation included; 1) role play, 2) video vignettes and 3) SimMan® scenarios for alcohol detoxification. This was needed because, of the top 10 diagnoses seen at the Birmingham VA Medical Center, three were psychiatric problems: posttraumatic stress disorder, drug abuse and schizophrenia. Because simulation can provide scenarios that mimic the real life clinical environment in a safe setting, this method of training and education was noted to improve knowledge and skill performance and enhance critical thinking in a clinical setting based on the evaluations from the RNs who participated in the program (Grant et al., 2011).

As part of a DNP project, Huggins (2016) examined whether nurses' competency level increased and attitudes toward mental illness changed following the implementation of a mental

health continuing education program. Two pre- and post-measures were used; one to assess nurses' perceptions of competency (the Behavioral Health Competency Survey), and one to assess the nurses' perceptions of stigma (the Opening Minds Scale for Health Care Providers). Sixteen RNs participated in the project and attended a six hour continuing education class that addressed the management of medically hospitalized patients with co-occurring mental illness. Huggins found that nurse participants had improved self-perceived competency ($p = 0.000$) and reduced stigma ($p = 0.012$) when surveyed 4-6 weeks after attending the education class. The strengths of this study are that valid and reliable instruments were used, and that findings indicated that additional mental health education positively affected generalist nurses' perceptions of behavioral health competencies, and their attitudes about stigma toward individuals with mental illness. Her study recommended that a heightened focus on preparing generalist nurses working outside of hospital settings with education was needed to enhance their competencies and attitudes.

Chapter Summary

The literature on generalist nurses' competencies and education regarding mental health is sparse. However, the literature does highlight the positive impact of providing mental health education to generalist nurses and provides foundational support for the aims of the proposed project. Studies have found that generalist nurses' attitudes can negatively affect how they view people with mental illness. The lack of perceived knowledge and competence of generalist nurses in caring for patients with mental illness may also negatively impact the mental health care these patients actually receive if they experience a mental health problem while admitted to a general patient care area. The literature supports the need for evidence based mental health education for the generalist nurse as a way to help address the gaps in providing care to these

patients. Further studies using valid and reliable instruments are needed to examine the impact of educational programs on generalist nurses' perceptions of their competency and attitude toward caring for patients with mental illness over time.

Findings from the literature highlight the reality that clinicians working in non-psychiatric settings, especially RNs, have negative attitudes and perceptions of individuals with mental illness, and feel ill-prepared to successfully care for these individuals. Also, education has a positive impact on reducing negative attitudes and perceptions toward patients with a mental health problem, and improving the competencies of generalist nurses in caring for patients with mental health needs in non-psychiatric settings. These findings support the proposed DNP project, which will examine the impact of an evidence based mental health continuing education program for generalist nurses on nurses' attitudes and competences in caring for individuals with mental illness. The literature underscores the need for additional mental health training for all generalist nurses to assure patients are being adequately and appropriately care for during their hospital stay, regardless of location. The next chapter presents the theoretical framework that will guide the development of the educational intervention that will be implemented in this study.

CHAPTER 3

THEORETICAL FRAMEWORK

Chapter Introduction

Nursing science is the culmination of knowledge and theories from a broad scope of

disciplines, with a focus on improving and maintaining health outcomes for individuals, groups,

and communities. The ability to understand, synthesize and then put into practice the wealth of

evidence available to change nursing practice is essential to advance the profession. In this

section, two theories that informed the development of this project will be discussed: attribution

theory and Swanson's caring theory.

Attribution Theory

Attribution theory is a mid-range psychological, social cognitive theory, that was used in

this project to assist in the development of interventions to change the knowledge and attitudes

of generalist nurses who provide nursing care in non-psychiatric settings. Attribution theory

explains how individuals view the cause and effect of behaviors and outcomes. Fritz Heider, an

Austrian psychologist, first wrote about interpersonal relations and the theory of attribution in the

1950s (Heider, 1958). He described individuals as "naïve psychologists" who want to

understand how others' behaviors affect outcomes. Heider was interested in demonstrating that

common-sense psychology could enhance the scientific understanding of people and their

interactions. Bernard Wiener (1995) expanded Heider's work by developing the theoretical

framework that is used today.

Attribution theory assumes that people try to determine why others do what they do. This involves three-steps: 1) the person observes a behavior in others; 2) the person believes the behavior to be intentional; and 3) the person decides if the other person was forced to perform the behavior or not (that is, whether the individual behaved in a particular way because of the situation or because of their personal tendencies/beliefs). Causes of behavior are further delineated as follows: 1) the locus of control can be internal (within the individual's control) or external, (outside the individual's control) 2) behaviors can change over time or remain stable, and 3) control over the outcome of any particular situation may be within or outside of one's personal domain/abilities.

Wiener's work on attribution focused on studies of education and achievement. He found that students with high self-esteem and high school achievement attributed their success to internal, stable, uncontrollable factors such as ability, while they attributed their failure to either internal, unstable, controllable factors like effort, or to external, uncontrollable factors such as task difficulty (Weiner, 1985).

Although attribution theory has been used to explain human behavior since the late 1950's, the first use of attribution theory in nursing was Bardwell (1986), who discussed how nurse educators could use attribution theory to support and encourage students by adopting an "adaptive attributional style". King (1983) explored illness attribution and the health belief model, albeit not within the context of attribution theory, and Crandall and Moriarty (1995) examined attribution theory in the context of physical illness and stigma. They found that illnesses perceived to be under the control of the individual were most likely to lead to social rejection. Corrigan's research on attribution theory focused on mental illness and stigma (2000; 2004; 2016; 2003; 2001; 2000; 2003; 2004). Corrigan and others found that peoples' views of

illness could be conceptualized in terms of controllability, and that mental illness was often

perceived as within the control of the person (Corrigan, 2000; Corrigan, 2004; Corrigan et al.,

2003; Corrigan et al., 2000; Corrigan et al., 2004; Crandall & Moriarty, 1995).

The relevance of attribution theory in this project is that generalist RNs may believe

individuals with mental illness are responsible for their condition and are less deserving of care.

The goal of providing an educational intervention based on the understanding of attribution

theory is to improve the attitudes (to be less stigmatizing) of generalist RNs caring for

individuals with mental illness. Additionally, Swanson's theory of caring was used to frame the

educational intervention.

Swanson's Theory of Caring

Swanson's (1991) mid-range theory focuses on caring, derived through her work in

perinatal nursing. Her theory couples the process of caring with a patient's well-being, along

five dimensions: knowing, being with, doing for, enabling and manifesting belief. Swanson also

identified the themes associated with nursing actions within the five processes. Kalfoss and Owe

(2015) conducted a systematic review to provide empirical verification of the processes Swanson

identified in nursing actions. The authors reviewed 25 articles published between 2003 and 2013,

and identified the themes associated with the nursing action within the five processes.

"Knowing" was described as focusing or centering on the patient and taking a holistic,

humanistic view of the person. Knowing means seeking to understand the patient's situation and

using empathy and sensitivity to guide the process. It also includes a nurturing way of relating to

another and an informed understanding of another. Further, the comprehensive nursing

assessment and understanding individual differences with regard to social and demographic

determinants is essential.

"Being with" includes the intimacy of the caregiving relationship as well as the human connectedness often described as bonding, trust, being emotionally present and being authentic. It also means being adaptable and compassionate. "Doing for" is the aspect of professional competence in providing care and possessing the clinical knowledge to provide care, and doing so while maintaining the dignity of the patient.

"Enabling" is allowing the patient to engage in self-care and entering into a partnership where communication is essential, power and responsibility is shared, and patient choice and decision making is encouraged. Finally, "maintaining belief" is accepting people as they are and considering the person as a whole and having hope that the patients they care for will be able to live meaningful lives.

Swanson's theory of caring is grounded in caring actions that span nursing specialties. Regardless of the setting or type of clinical / behavioral need, all patients deserve to be cared for in the manner that Swanson's theory highlights. Swanson's caring theory was used to address the challenges generalist nurses experience when caring for a person with mental illness. All five concepts from Swanson's theory were used in developing the continuing education program for the educational intervention. Specifically assisting generalist nurses to first see the person with mental illness they are caring for is first and foremost a person and not their illness and maintaining the belief and faith that their patient will get through their crisis. The concept of knowing will serve as the foundation for the development of the content for the educational intervention. Being with and doing for closely mirrors the mental health concepts of therapeutic use of self and therapeutic communication and was incorporated into the nursing interventions and communication modules. Finally, the concept of enabling was used to guide education discussions on supporting rather than controlling behavior that will encourage the patient to

generate their own solutions and thinking through issues. Attempts were made to tailor the education intervention using approaches that were familiar to nurses and caring in nursing. These theories were critical to the project and worked hand-in-hand to address the educational needs of the generalist nurse. It was hypostatized that understanding and incorporating attribution theory into the intervention would assist in reducing the stigmatizing attitudes generalist RNs may have in caring for individual with mental illness and Swanson's theory of caring would assist generalist RNs in developing competencies that will allow them to care for individuals with mental illness

Chapter Summary

This chapter discussed the two theories, attribution, a mid-range psychological theory and Swanson's theory of caring, a mid-range nursing theory, what will serve as a framework for this project. Understanding attribution theory is essential to develop an educational intervention that will addressed stigma and inform/correct misperceptions the participants may have. Swanson's Theory of Caring is also essential. Her 5 care processes are appropriate for caring for people, regardless of their illness. What Swanson's theory highlights is that RNs must see the person first and the disease second and have belief that the person will get thorough their crisis. In the next chapter, the methods and approaches used to implement this intervention will be discussed.

CHAPTER 4

METHODS

This project evaluated the impact of a mental health continuing education intervention on generalist nurses' self-perceptions of behavioral health competencies and attitudes toward caring for individuals with mental illness in a non-psychiatric setting.

Project Design

A quasi-experimental, interventional pilot study with a repeated measures design within a single group of participants was used to evaluate the outcomes of this project. Two valid and reliable instruments were administered to the RN participants at baseline (immediately before the educational session), post-education intervention, and 4 weeks post-intervention.

Educational Intervention

The educational intervention used in this project was a 6-hour education session with 5 CEUs using evidence-based guidelines from the American Psychiatric Nurses' Association Transitions in Practice (Adams, 2015a), and the Mental Health Commission of Canada on stigma reduction (Knaak & Patten, 2014). While the project site offered continuing education on mental health, the training focused primarily on describing common psychiatric diagnoses, suicide prevention and medication management, as well as reinforcing the institution's existing policies related to levels of observation and restraint use. Although the existing training at the project site provides some information that may improve the mental health competencies of the generalist RN, there have been no efforts to document whether nurses' knowledge and competencies were enhanced after receiving the education. Moreover, none of the continuing

education classes on mental health at the study site focused on changing the attitudes of the RNs caring for individuals with mental illness.

Providing education to healthcare providers has been documented as an effective method to improve competencies (Brunero et al., 2012; Huggins, 2016; D. N. Rutledge et al., 2013) and attitudes (Arboleda-Flórez & Stuart, 2012; Bharathy, Foo, & Russell, 2016; Corrigan et al., 2012; Huggins, 2016; Papish et al., 2013; Patten et al., 2012), as determined by comparing data gathered pre- and immediately post-intervention. However, literature assessing the long-term effects of an educational intervention to improve competencies and attitudes of generalist RNs caring for individuals with mental health needs is scarce.

The 6-hour education session was coordinated and taught by a trained, master's prepared, psychiatric clinical nurse specialist (CNS) employed by the project site. The CNS was educated on the project by reviewing the proposal and meeting with the project investigator to develop the course content. Additionally, a psychiatric physician's assistant (PA) provided the overview on psychotropic medications. There was an opportunity for participants to ask questions to the project investigator at the beginning and end of the session. Participants attended the entire class. A six-hour session was chosen to assure adequate time for content (both didactic and interactive discussion) and was based on information about session length reported by Brunero et al.'s (2012) integrative review of mental health education programs.

The class was developed to be consistent with Weiner's theory of attribution and Swanson's theory of caring. The class was titled: Caring for people with mental illness: A primer for non-psychiatric mental health nurses. Topics included: 1) an overview of common mental health diagnoses and symptomatology of patients needing inpatient psychiatric care; 2) nursing interventions to be used in caring for patients with mental illness (i.e., communication,

therapeutic use of self); 3) psychopharmacologic updates relevant to common psychiatric diagnoses including psychotic and depressive disorders; and 4) a presentation by two individuals who have mental illness with an emphasis on stigma reduction and providing hope that individuals with mental illness do go on to live meaningful lives. The objectives for this intervention were that, at the end of the class, participant would be able to: 1) describe typical symptoms of common mental health disorders, 2) identify strategies to address common nursing functions when caring for people with mental illness (assessment, intervention, and communication; 3) be familiar with current updates in psychopharmacology; 4) understand the perspective of a person living with mental illness; and 5) describe strategies for further professional growth in caring for individuals experiencing a mental health crisis. Education strategies included lecture, interactive group discussions and case presentations to deliver foundational content (via PowerPoint presentations), handouts and a contact-based session to address misperceptions and misconceptions about mental illness.

Both training sessions were held in with the WM conference center with a capacity of 35. Participants registered for the classes via WM's training and education online portal. Pre- and post-surveys were completed using a hard-copy, paper-and-pencil survey. The 4 week post survey was completed by either paper and pencil or online (Survey Monkey®). Lunch was provided to participants, as was 5 CEUs provided by WM (Appendix B). The course outline is included (Appendix C).

Setting

The location for the implementation of the educational intervention and data collection was at WM in Raleigh, North Carolina. WM is the largest health care system in Wake County. WM is a not-for-profit health care system that is comprised of three hospitals (WakeMed

Raleigh, WakeMed Cary and WakeMed North), 919 licensed beds, and three free standing

emergency departments. WM employs 2,887 RNs and the nursing services department uses

Swanson's theory of caring as their nursing theory to guide their vision on how they provide care

to improve the health and well-being of their community with outstanding and compassionate

care to all (WakeMed Health and Hospitals, 2017). In 2016, the WM system had 50,148

discharges and 289,841emergency visits (WakeMed Health and Hospitals, 2016). Of those,

3,071 patients with mental illness were on involuntary commitment (IVC) and boarding in an

inpatient bed an average of 7.88 days waiting to transfer to a psychiatric hospital (S. Hoffman,

2017). This equates to 24,200 days of mental health care provided by generalist nurses during

the year. At any given time in the WM system, there are 65 patients requiring mental health care

for an acute crisis. The number of individuals being boarded at WM on IVC awaiting transfer to

an inpatient psychiatric hospital has increased by 24% in the past 4 years (S Hoffman, 2017).

Thus, the priority of more effectively managing patients with behavioral health diagnoses is

important to WM and is one of the top five priorities for the organization for fiscal year 2018

(October 1, 2017 – September 30, 2018). This project is a high-priority for WM and the concept

has been endorsed by and was supported through resources made available by WM.

Additionally, the system's Nursing Evidence-Based Research Council endorsed the project.

Target Population

The population targeted for this project were generalist RNs working for the WM

hospital system (in home health and acute care) in Wake County North Carolina in any capacity

(i.e., per-diem, part-time or full-time). Participants needed to understand English. There are

2,887 RNs working for WM. Most of this workforce is female (91%), White / Caucasian (75%),

and has a BSN (65%). The average age is 42 years old, and the average years of experience working as a nurse is thirteen.

The first education session targeted the RNs working in home health because of the expressed interest of the executive director and the identified need for content. The home health RNs are caring for patients that have both medical and mental illness. This is not surprising given the odds of individuals with serious mental illness, such as schizophrenia and bipolar disorders, having a medical comorbidity is greater than 1.5 times the general population (Bahorik, Satre, Kline-Simon, Weisner, & Campbell, 2017) and as stated earlier individuals with mental illness also are more likely to have chronic medical conditions compared to the general population (Edward et al., 2012; Scott et al., 2012; van der Kluit & Goossens, 2011). The second session was open to all RNs employed by WM. Lessons learned from the first training session were integrated into the second session.

Data Collection and Instruments

To address study aims, the outcomes examined in this project were: 1) attitudes (or stigma) toward caring for individuals living with mental illness in generalist nurses practicing in a non-psychiatric setting and 2) self-perceived mental health care knowledge and competencies in generalist nurses practicing in a non-psychiatric setting. In both cases, it was anticipated that outcomes would improve following the implementation of this project. Demographic information on session participants (i.e., the RNs who attended the class), and open-ended question responses was also gathered. Data were gathered by surveying participants before the educational intervention, immediately following the educational session, and at four weeks post-session to evaluate the outcome of training.

Outcomes were measured using two valid and reliable instruments: the Opening Minds Scale for Health Care Providers (OMS-HC) (Modgill, Patten, Knaak, Kassam, & Szeto, 2014) and the Behavioral Health Care Competency (BHCC) (D. Rutledge, Wickman, Drake, Winokur, & Loucks, 2012). Combined, the OMS-HC and BHCC contain a total of 38 items, and both surveys use a five-point Likert-type rating scale system with the following response options: 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, and 5 = Strongly agree. The time estimated to complete both surveys is 20 minutes or less. Permission to use both surveys was obtained from the respective developers/researchers (Appendix D).

The OMS-HC is a 15-item survey with three subscales that assess attitudes of health care providers in three domains: 1) people with mental illness, 2) disclosure and help-seeking, and 3) social distance. (Appendix E). The mental illness subscale relates to the general attitudes toward people with mental illness and the role of health care providers; the disclosure and help-seeking subscale relates to self-disclosure of mental illness and help seeking behavior; and the social distance subscale relates to a willingness to engage people with mental illness in activities and relationships (Appendix F).

The OMS-HC has also been reported to be valid and reliable. In a secondary analysis of data gathered from 1,523 participants in 12 different anti-stigma programs who completed the original 20-item OMS-HC prior to and after receiving stigma reduction education, Modgill et al. (2014) evaluated the psychometric properties of the instrument.

The scale includes three factors: attitudes, disclosure and help seeking, and social distance. Internal consistency of the 15-item scale (α 0.79) and the three subscales (α 0.67 to 0.68) was deemed acceptable. Modgill et al. also assessed the scale's sensitivity to change was also assessed using paired t-test (significant decrease of 6.6% in the overall mean score),

effective size ($d = 0.28$) and standardized response means (0.40, 95% *CI*). The authors

concluded that the 15-item OMS=HC had acceptable internal consistency and was successful in

detecting changes associated with anti-stigma education/interventions.

The BHCC is a 23-item survey developed to measure non-psychiatric mental health RN's

self-perceived competency in caring for patients with mental illness. The BHCC has four sub-

scales to assess patient assessment, practice/intervention competency, psychotropic

recommendations and resource adequacy (Appendix G). Responses are assessed for each

subscale and then for the instrument overall by first summing individual responses to all items in

each sub-scale, and then totaling the combined score for all subscales for a total scale score. The

range of possible individual scores is 15-75, with a higher score indicating greater perceived

competency.

The BHCC has been reported to be valid and reliable. Rutledge et al. (2012) surveyed

844 nurses from three community hospitals. Construct validation was supported based on a

sample of nurses with and without psychiatric mental health nursing experience. Nurses who

had prior experience in mental health nursing had significantly higher scores than nurses without

experience (0.05; $p < 0.0001$). Reliability was demonstrated with Cronbach's alpha coefficient

total score of 0.92 and subscale scores as follows: Resource Adequacy (0.78), Patient

Assessment (0.91), Practice/Intervention Competency (0.90), and Psychotropic Recommendation

(0.78).

In addition, demographic data were gathered in this project to understand the background

of nurses who attended the sessions. These questions were collected from participants prior to

the intervention. The information collected was: gender; age (range); years as an RN (range);

highest nursing degree; experience working in a mental health setting (yes/no) (Appendix H).

Three additional open-ended questions were asked of participants at a 4 week follow-up: 1) Has the training changed your behaviors in caring for patients with mental illness? If so, how?, 2) Has the training impacted your competencies in caring for patients with mental illness? If so, how?, and 3) Has the training impacted your attitude toward caring for patients with mental illness? If so, how? (Appendix I). These open-ended questions assisted with the data analysis by corroborating the results from the two survey instruments (O'Cathain & Thomas, 2004). Both the demographic and open-ended questions were developed using the survey instrument design principles of Dillman et al. (2009). The survey administration schedule is highlighted in Table 1.

Table 1. Survey Administration Schedule

	Pre-Intervention	Immediate Post-Intervention	4 Weeks Post-Intervention
OMS-HC	X	X	X
BHCC	X	X	X
Demographic Survey	X		
Open Ended Questions			X

Recruitment

Recruitment for the first training session was carried out with assistance of the Executive Director of Home Health Services at WM and Nursing Education. Flyers (Appendix J) with information about the project (i.e., description of the project, what it entails, date and location, etc.) were sent electronically to the executive director; in turn, she disseminated information to prospective generalist RN participants. Although the education session was voluntary, the home health nurses were enrolled in the course by their manager and did not need to independently register. The second session recruitment targeted the nursing managers and directors of the

hospitals, asking these leaders to encourage their clinical RNs to participate. Participants

registered electronically using WM's education and training electronic online portal, but could

also walk in the day of the session if there was space. Recruitment incentives offered included 5

CEUs and lunch during the education sessions.

Ethics and Human Subjects Permissions

Prior to launching the project, review and approval through the Institutional Review

Boards (IRB) at the University of North Carolina at Chapel Hill (UNC-CH) (Appendix K) and

WM (Appendix L) were obtained. The project investigator has previously completed

Collaborative Institutional Training Initiative (CITI) training required by the UNC-CH.

All generalist RNs who attended the educational session were invited to participate in the

project. All who agree to participate received full disclosure about the project prior to the

administration of the first survey (Appendix M). Participants could also attend the educational

session without completing the surveys, and participants who completed the surveys may request

the aggregated results upon study completion.

All data collected from the participants were protected using a subject-generated

identification code (SGIC) (Yurek, J., & Sullivan Havens, 2008). The SGIC allows participants

to create their own unique identifier, as shown in (Table 2).

Table 2. Subject-Generated Identification Code Question Set

Question Set Stem: What is the answer…	Example Answer	Code Element	SCIG
First letter of mother's first name?	S – Sue	S	
Number of older brothers (living and deceased)?	00 – zero	00	
Number representing the month you were born?	06 – June	06	
First letter of middle name (if none, use X)	E – Ellen	E	
Subject-Generated Identification Code			S0006E

The pre-and post-surveys were completed on paper, and the 4 week post surveys were completed either by paper or electronically and then entered into an electronic file (Excel). The paper copies were destroyed. The electronic file was stored on a password protected flash drive and will be retained for three years after the project is closed with the IRB, and then destroyed. The registration information from the education course will not be linked in any way to the survey results. Results from this project will only be disseminated using de-identified data and will only be reported in aggregate form. Only the project investigator and project chair will have access to the data. A copy of the data will be retained by the Project Chair for the time required by the UNC-CH and WM IRBs.

As with any project of this nature, there are potential risks associated with this project. Participating in a project that focuses on mental health may make some participants uncomfortable with the content, engaging in the educational sessions, or sharing information. To address these concerns, participation in the project and the sharing of information in discussions were entirely voluntary. The benefits of participation, however, were that RNs will be better prepared to deliver care to patients with mental illness and help alleviate concerns about caring

for this population of patients. Also, RNs who participated in the educational session and complete the surveys gained insights into their own professional development and training needs. All RNs who participated in the educational session received continuing education credits for attending the session, and not just those who participated in the study. Given the magnitude of the problem being addressed in this project, and the value to be derived for both patients and nurses, the benefits of the project are believed to outweigh the risks.

Key Personnel/Stakeholders

Key project personnel included, the psychiatric mental health CNS and PA employed by WM who conducted the education, the staff within the nursing education department at WM who coordinated the continuing education process, and the administrative assistant staff who assisted with coordination of class room and equipment set-up. The project investigator provided overall project coordination and assured that timelines and targets are maintained. The project investigator was also responsible for data collection and analysis.

Key internal stakeholders for this project included the Chief Executive Officer and senior leadership at WM, who have responsibility for the oversight of and ensuring the quality of all care delivered at WM. Also members of the WM Institutional Review Board and Evidence Based Research Council were stakeholders because they are charged with reviewing research projects to assure the protection of the rights and welfare of the human subjects involved. The system's Chief Nursing Officer and other nursing leaders in the organization were also important sponsors of, and have a stake in the success of this project because they are directly responsible for the nursing care of the organization. The WM Physician Practices Psychiatry staff and Hospitalists were key in the successful implementation of this project because the RNs will be better trained to care for their patients. External stakeholders for this project were the Wake

County National Alliance for the Mentally Ill and patients and their families who may experience the need for behavioral health or substance use services during a crisis.

Resources and Budget

This project involved voluntary participants, so there was no cost for recruitment apart from the educational flyers. WM provided the following as in-kind contributions: the coordination of obtaining CEUs for the educational sessions; time of the psychiatric mental health CNS to plan and teach the sessions; time of the project investigator to be present during both training sessions and answer questions; the educational pay of the RNs attending the training and potential replacement costs of doing so if RNs are not attending on their day off; and conference space and necessary audio-visual equipment. Lunch was provided by the project investigator.

Data Analysis

Data from the demographic questions were computed using IBM SPSS Statistics 25 software. The results from the OMS-HC and BHCC were analyzed using a paired Wilcoxon test using R statistics software (R Core Team, 2012). During the data coding from Session One, it was discovered that the paper survey was incomplete; nine questions from the BHCC had been omitted. As a result, only the OMS-HC was analyzed for participants in Session One. Three different sets of testing were conducted; the OMS-HC for Session One and both the OMS-HC and BHCC for Session Two. For the OMS-HC testing, there were three subscales scores: Subset A) attitude toward people with mental illness, Subset B) attitude toward disclosure and help-seeking, and Subset C) attitude toward social distancing. For the BHCC, there were five subscale scores: 1) assessment and competencies, 2) practice and intervention, 3) psychotropic medications, 4) resource adequacy and 5) the full score.

For each of these subscales, two sets of tests were performed using two different time points: 1) pre-intervention versus post-intervention, and 2) pre-intervention versus 4 week post-intervention. Only participants that responded to both survey time points were included for each of these sets of tests. For each of these sets of tests, the same basic procedure was performed in R: raw data was divided by subscale and survey and the mean value for individuals in the subscale in each survey was calculated. (i.e., there is a mean value for subject *xxx* for Subscale A in Session One and another mean value for subject *xxx* for Subscale A in Session Two to be compared). These mean values were tested for outliers using the boxplot.stats function. An outlier is commonly defined as is a data point that falls more than 1.5 times the interquartile range above the third quartile or below the first quartile (Renze, 2018). If any outliers were detected, the participants were removed from both datasets being compared for that test so as to not skew the results. A boxplot was generated to demonstrate where the outliers were found.

After outlier removal, a paired Wilcoxon test was performed on the mean values to determine if the responses were the same between the two surveys. If significant differences were found, a violin plot was produced to visually demonstrate the difference in mean values and mean distributions. The boxplots and violin plots for each test are located in Appendix N.

Chapter Summary

This chapter reviewed the methods used to develop and implement the project and the analysis used to assess the results of the intervention. The project was a quasi-experimental, interventional pilot study with a repeated measures using two valid and reliable instruments (the OMS-HC and the BHCC) to determine whether an educational intervention can impact the attitudes, knowledge and competencies of generalist nurses when caring for individuals with mental illness. The next chapter will discuss the results.

CHAPTER 5

RESULTS

The purpose of this project was to design, implement and analyze an educational

intervention to improve the self-perceived attitudes, knowledge and competencies of generalist

nurses caring for patients with acute psychiatric needs. This chapter presents project findings by

project goals.

- Project Goal 1: This goal focused on improving the attitudes (or decreasing the stigma) of

  generalist nurses towards caring for individuals living with mental illness

- Project Goal 2: This goal focused on improving the self-perceived mental health care

  knowledge and competencies of generalist nurses

Participants

Twenty-four participants registered for the first session and twenty-three for the second.

Registration was kept separate and not linked to the results of the survey. In addition, Session

One had one same-day walk-in registration. The project investigator aimed to have a

convenience sample of 40 RNs. Forty-two RNs attended the sessions (22 in Session One and 20

in Session Two) and three non-registered nurses attended Session One (a social worker,

occupational therapist and physical therapist). Demographic, and pre- and post-data were

obtained from 41 (97.6%) of the RN participants. All participants were female. The non-nurses

and the one RN from Session Two who did not complete the post-survey were excluded from the

analysis. Participants who attended either session completed a participant feedback tool.

Session One (Appendix O) had an overall satisfaction rating of 3.53 out of 4 and Session Two

(Appendix P) had an overall satisfaction rating for 3.94 out of 4.

Study Sample

There were four sub-samples for this project. They included; 1) RN participants who

completed the pre- and post-surveys in Session One ($n = 22$), 2) RN participants who completed

the pre- and post-surveys in Session Two ($n = 19$), 3) RN participants who completed the pre-,

post- and four-week post survey data in Session One ($n = 8$), and 4) RN participants who

completed the pre-, post- and four-week post survey data in Session Two ($n = 10$). The return

rates for the four-week post survey were 36% from Session One and 53% from Session Two.

Characteristics of the matched pair-study for participants who completed the first two surveys,

(Table 3) and for those that completed all three surveys (Table 4) were summarized using

descriptive statistics, frequency and percentages.

All participants, regardless of session attended and survey completeness, were female and

the majority were white / Caucasian, had their BSN, worked more than six years as an RN,

worked at the WakeMed Raleigh Hospital and did not have prior psychiatric experience. The

ages for Session One and Two ranged from 25-64 years with more than half of participants aged

between 35-54 years (68%) in Session One and (58%) in Session Two. The years' experience

working as a RN ranged from less than 5 to greater than 30 years in both sessions; with the

majority of participants (63%) having worked between 6 to 20 years in Session One, and the

majority (52.2%) of participants in Session Two having worked less than 5 years to 10 years.

The mean number of years of experience working as a RN was 13.91 ($SD = 9.64$) with a range of

30 years for Session One, and 11.21 ($SD = 10.315$) with a range of 30 years for Session Two.

The majority of participants in Session One (81.8) and two (73.7) did not have prior psychiatric experience.

Table 3. Participant characteristics, age, ethnicity, education, RN experience, psychiatric experience and work location for Session One ($n = 22$) and Session Two ($n = 19$)

| Characteristics	Session One (Dec Class)		Session Two (Jan Class)	
	n	Percent	*n*	Percent
Age				
25-34	4	18.2	6	31.6
35-44	6	27.3	3	15.8
45-54	8	36.3	8	42.1
55-64	4	18.2	2	10.5
Ethnicity				
Black or African American	5	22.7	3	5.3
White / Caucasian	16	72.7	15	78.9
Other	1	4.6	1	15.3
Highest Nursing Degree (Education)				
Diploma	1	4.6	1	5.3
ADN	5	22.7	4	21.1
BSN	15	68.1	14	73.7
MSN	1	4.6	-	-
Years as an RN				
0-5	2	9.0	5	26.3
6-10	6	27.3	5	26.3
11-15	4	18.2	2	10.5
16-20	4	18.2	2	10.5
21-25	2	9.0	1	5.3
26-30	-	-	3	15.8
Greater than 30	4	18.2	1	5.3
Previous Psychiatric Nursing Experience				
Yes	4	18.2	5	26.3
No	18	81.8	14	73.7
Work Location				
Cary	1	4.6	3	15.8
Home Health	10	45.4	-	-
Raleigh	11	50.0	16	84.2

Table 4. Participant characteristics, age, ethnicity, education, RN experience, psychiatric experience and work location for Session One (n = 8) and Session Two (n = 10) who completed all three surveys

Characteristics	Session One (Dec Class)		Session Two (Jan Class)	
	n	Percent	*n*	Percent
Age				
25-34	2	25.0	3	30.0
35-44	2	25.0	1	10.0
45-54	3	37.5	4	40.0
55-64	1	12.5	2	20.0
Ethnicity				
Black or African American	-	-	2	20.0
White / Caucasian	8	100.0	7	70.0
Other	-	-	1	10.0
Highest Nursing Degree (Education)				
Diploma	1	12.5	1	10.0
ADN	2	25.0	3	30.0
BSN	5	37.5	6	60.0
Years as an RN				
0-5	1	12.5	3	30.0
6-10	2	25.0	2	20.0
11-15	1	12.5	2	20.0
16-20	2	25.0	-	-
21-25	1	12.5	-	-
26-30	-	-	2	20.0
Greater than 30	1	12.5	1	10.0
Previous Psychiatric Nursing Experience				
Yes	1	12.5	1	10.0
No	8	87.5	9	90.0
Work Location				
Cary	1	12.5	-	-
Home Health	2	25.0	-	-
Raleigh	5	62.5	10	100.0

Goal/Aim 1: Improve Nurses Attitudes toward Mental Illness

For participants in Session One, there was one outlier found in all data, which was in the pre-intervention survey, Subscale A, attitude toward people with mental illness (Figure 3). This participant rated greater than1.5 times the interquartile range above the third quartile and was removed from the analysis for Subscale A.

Figure 3. OMS-HC Outlier found in Session One, Subscale A: Pre-Intervention Survey
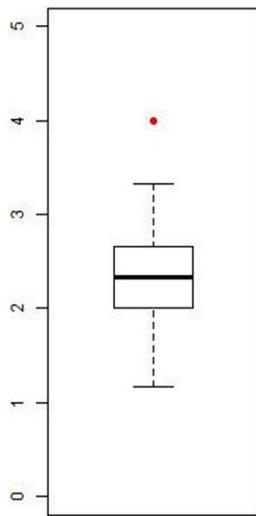
For all Session One, with the outlier removed, there were no significant differences found between the pre- and post-intervention scores on the OMS-HC. When the outlier was kept, there was kept, there was a significant difference in Subscale A ($p = 0.033$). When comparing pre-intervention and 4 week post-intervention scores, there was one significant finding that reflected a difference in nurses' attitudes toward mental illness subscale. No outliers were found in any of the data. The results are summarized in Tables 5 and 6.

Table 5. OMS-HC Session One: Pre- and Post-Intervention OMS-HC Results

	n	Pre-Intervention Mean	Post-Intervention Mean	p
Subscale A: Attitudes toward people with MI	21	2.337	2.119	0.058
Subscale A: MI-With Outlier	22	2.412	2.152	0.033
Subscale B: Attitude toward disclosure and help-seeking	22	2.750	2.625	0.254
Subscale C: Attitude toward social distance	22	2.289	2.045	0.052

Table 6. Session One: Pre- and 4 Week Post-Intervention OMS-HC Results

	n	Pre-Intervention Mean	4 Week Post-Intervention Mean	p
Subscale A: Attitudes toward people with MI	8	2.333	1.875	0.014
Subscale B: Attitude toward disclosure and help-seeking	8	2.844	2.438	0.147
Subscale C: Attitude toward social distance	8	2.050	1.675	0.051

For participants in Session Two, one outlier was found for Subscale A, attitude toward people with mental illness and two were found for Subscale C, attitude toward social distance in the pre- and post-intervention comparison (Figures 4 and 5). The participants who were outliers had lower (less stigma) scores than the other participants. Removing or leaving in these outliers made no difference in the results.

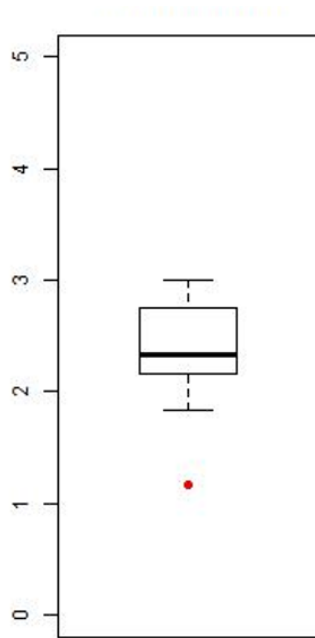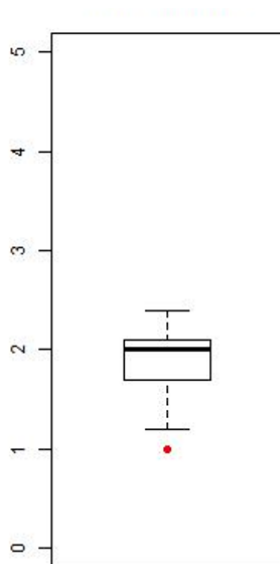Figure 4. OMS-HC Outlier found in Session Two, Subscale A: Pre-Intervention Survey

Figure 5. OMS-HC Outlier found in Session Two, Subscale C: Pre-Intervention Survey

There were no significant differences found between the pre- and post-intervention scores on the

OMS-HC. One outlier was identified in Subscale B for Session Two in the pre- and 4 week

post-intervention scores (Figure 6).

Figure 6. OMS-HC Outlier found in Session Two, Subscale B: Pre-Intervention Survey
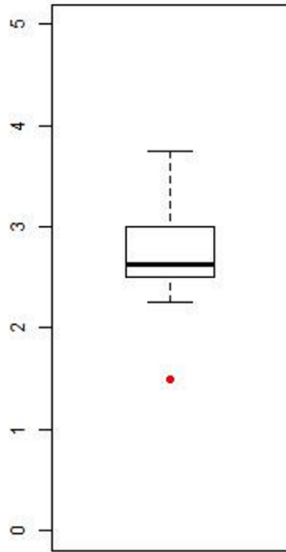
The outliers identified were different than in the pre- versus post-intervention comparison because the participants involved were different. Again, this participant scored lower (less stigma) ad removing or leaving in this outlier made no difference in the results.

The tests showed a significant difference in Subscale A, with the pre-intervention mean being higher than the 4 week post-intervention mean. The results are summarized in Tables 7 and 8.

Table 7. Session Two: Pre- and Post-Intervention OMS-HC Results

	n	Pre-Intervention Mean	Post-Intervention Mean	*p*
Subscale A: Attitudes toward people with MI	18	2.435	2.241	0.105
Subscale B: Attitude toward disclosure and help-seeking	19	2.605	2.421	0.188
Subscale C: Attitude toward social distance	17	2.000	1.953	0.754

Table 8. Session Two: Pre- and 4 Week Post-Intervention OMS-HC Results

	n	Pre-Intervention Mean	4 Week Post-Intervention Mean	p
Subscale A: Attitudes toward people with MI	10	2.517	2.200	0.018
Subscale B: Attitude toward disclosure and help-seeking	9	2.833	2.611	0.292
Subscale C: Attitude toward social distance	10	2.020	1.920	0.611

The data from Session One and Session Two were combined and tested with and without outliers. Subscale A was significant, with or without outliers, when comparing pre- and post-intervention scores. Subscale C as only significant if the outliers were kept in the dataset when comparing pre- and post-intervention scores. When comparing pre- and 4 week post-intervention scores, there were significant differences for both Subscale A and Subscale C. There were no outliers. The results are summarized in Tables 9 and 10.

Table 9. Combined Sessions One and Two: Pre- and Post-Intervention OMS-HC Results

	n	Pre-Intervention Mean	Post-Intervention Mean	*p*
Subscale A: Attitudes toward people with MI	19	2.414	2.189	0.009
Subscale A: MI-With Outliers	21	2.392	2.171	0.010
Subscale B: Attitude toward disclosure and help-seeking	21	2.683	2.530	0.072
Subscale C: Attitude toward social distance	19	2.085	2.000	0.185
Subscale C: Social Distance-With Outliers	21	2.116	1.956	0.037

Table 10. Combined Sessions One and Two: Pre- and 4 Week Post-Intervention OMS-HC Results

	n	Pre-Intervention Mean	4 Week Post-Intervention Mean	*p*
Subscale A: Attitudes toward people with MI	18	2.435	2.056	0.000
Subscale B: Attitude toward disclosure and help-seeking	18	2.764	2.500	0.082
Subscale C: Attitude toward social distance	18	2.033	1.811	0.044

Goal/Aim 2: Improve Nurses Knowledge and Competencies

These results are presented differently than the OMS-HC results because a pattern was seen in the outlier analysis. Specifically, the same five respondents came up as outliers in all comparisons and were therefore removed from all comparisons. The respondents were consistent in answering either high or low. Two were outliers in both comparisons the other three only in the first comparison. Figure 7 depicts the outliers from the pre- and post-intervention test and Figure 8 from the pre- and 4 week post-intervention test.

Figure 7. BHCC Outliers found in Session Two, Pre- and Post-Intervention Survey
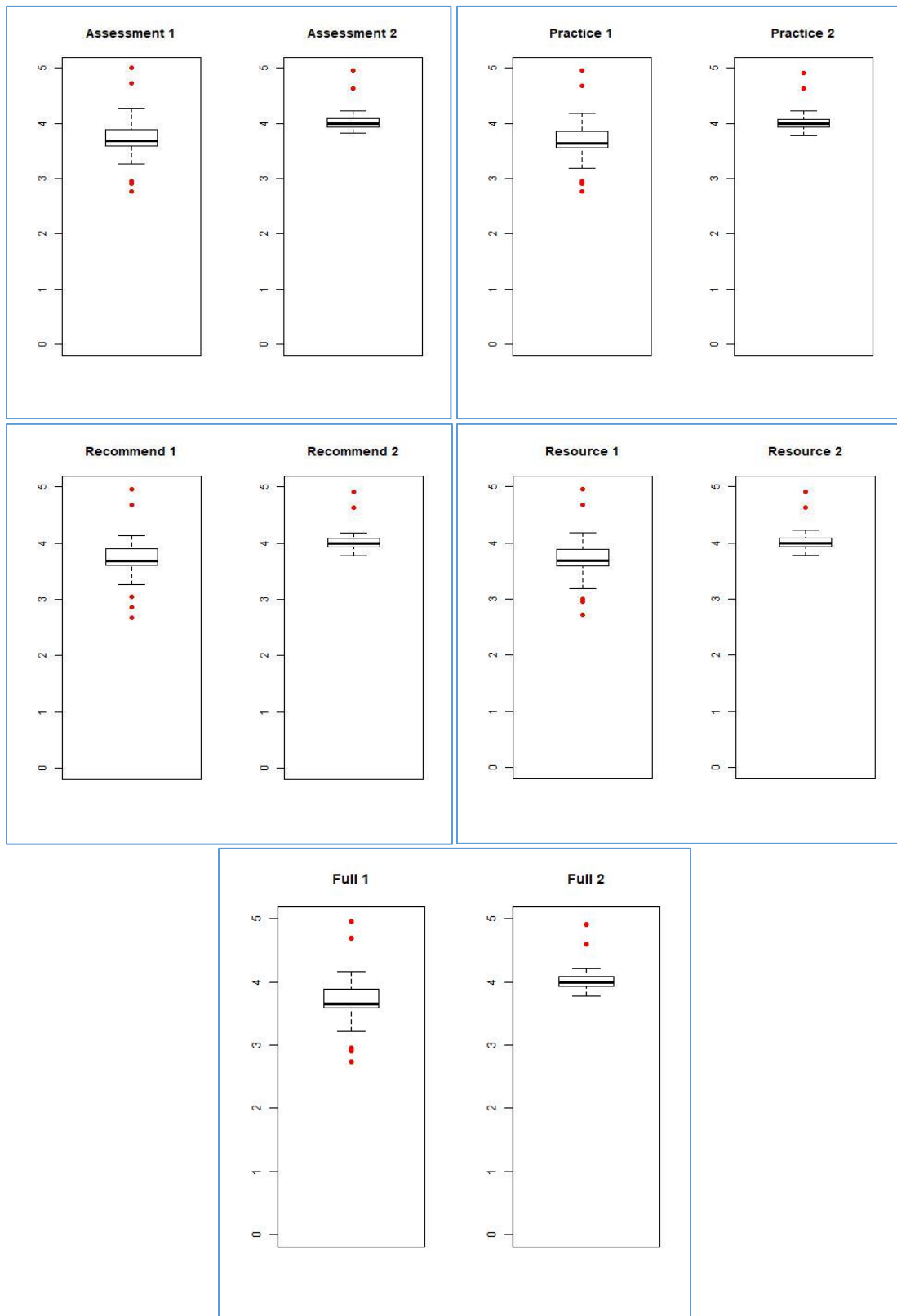
Figure 8. BHCC Outliers found in Session Two, Pre- and 4 Week Post-Intervention Survey
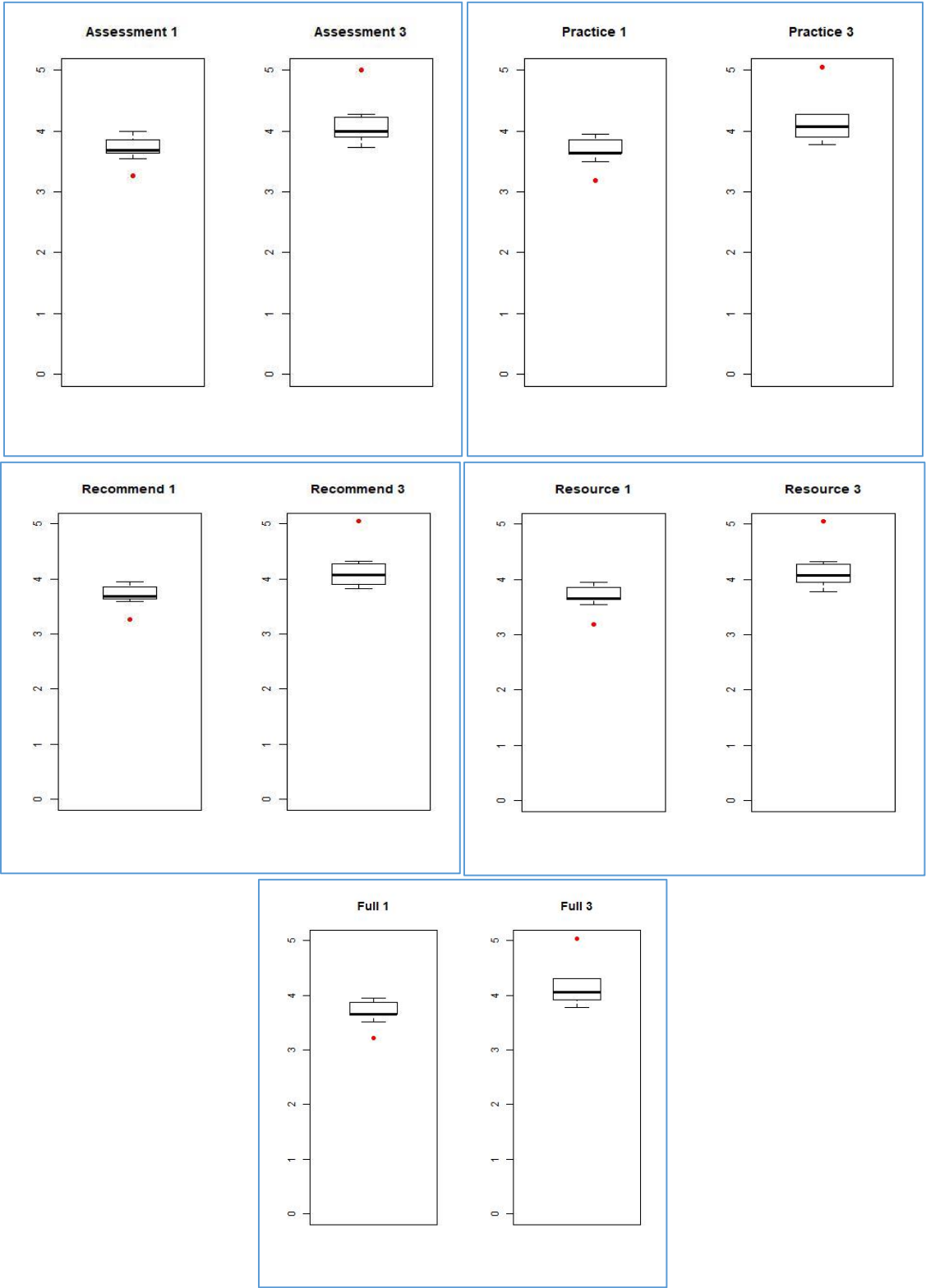
All results were significant, with the second comparison responses were consistently higher than the first comparison. Like the pre- and post-intervention tests, consistent outliers were found in two of the 10 participants for both pre- and 4 week post-intervention data, reducing the dataset to 8 eight for testing. All responses were significantly different, with the 4 week post-intervention scores being higher than the pre-intervention scores. The results are summarized in Tables 9 and 10.

Table 11. Session Two: Pre- and Post-Intervention BHCC Results

	n	Pre-Intervention Mean	Post-Intervention Mean	*p*
Patient Assessment	14	3.74	3.99	0.002
Practice/Intervention	14	3.71	3.98	0.002
Medication Recommendation	14	3.74	3.99	0.002
Resource Adequacy	14	3.73	3.99	0.002
Full Score	14	3.73	3.99	0.001
Assessment-With Outliers	19	3.72	4.07	0.001
Practice-With Outliers	19	3.71	4.06	0.001
Medication-With Outliers	19	3.7	4.06	0
Resource-With Outliers	19	3.72	4.07	0.001
Full-With Outliers	19	3.71	4.06	0

Table 12. Session Two: Pre- and 4 Week Post-Intervention BHCC Results

	n	Pre-Intervention Mean	4 Week Post-Intervention Mean	p
Patient Assessment	8	3.76	4.01	0.036
Practice/Intervention	8	3.74	4.03	0.014
Medication Recommendation	8	3.78	4.05	0.025
Resource Adequacy	8	3.77	4.05	0.022
Full Score	8	3.76	4.04	0.022
Assessment-With Outliers	10	3.69	4.10	0.014
Practice-With Outliers	10	3.66	4.14	0.006
Medication-With Outliers	10	3.71	4.15	0.009
Resource-With Outliers	10	3.69	4.15	0.009
Full-With Outliers	10	3.68	4.15	0.009

Open-Ended Questions

Eight participants in Session One responded to open-ended survey questions. Of those, 7 of them felt the training they received positively changed their behaviors and impacted their competencies in caring for individuals with mental illness and 6 felt the training increased their understanding of mental illness and positively impacted their attitude in caring for individuals with mental illness. The participants were asked how the training impacted their behaviors, competencies and attitudes. The same 6 participants provided comments for each question. Their responses are listed below.

Question 1: Has the training you received changed your behaviors in caring for patients with mental illness?

1. "I feel less threatened of physical outburst and now look for ability to connect."

2. "This is the best course I have taken at WakeMed. I have truly enjoyed learning about how to quickly intervene when a patient is escalating and how to recommend interventions to the physician. One thing I was concerned about prior to the course was medication administration and having the PA come and discuss the different medications was so helpful! I also truly enjoyed hearing from the women who spoke about their experiences in mental health."

3. "I think I'm more aware and compassionate. I just had a patient who had a personality disorder, and instead of quickly leaving the room. I tried to engage in conversation. I don't know that it was successful. But, I definitely felt more compassion than in the past."

4. "Before the training I had a hard time dealing with people with mental illness. It scared me and I had created a stigma about them. Hearing the personal stories really helped. It put into perspective that these are all people and they really need our help. It's provided me with more compassion and patience towards them."

5. "To a certain degree, I continue to distinguish mental illness as separate from addiction. Am I incorrect? "

6. "I have always been compassionate but hearing the NAMI speakers that are not stable I have gained a better understanding of what the patient experiences and how they feel while in the hospital and feel I take even more time with my patients now and try to provide understanding."

Question 2: Has the training impacted you competencies in caring for patients with mental illness?

1. "I'm more educated on first line drugs for particular diagnoses."

2. "As I have stated above I certainly do feel better prepared to help make an impact in the care people with mental illnesses receive."

3. "I think it has improved my competency."

4. "Mainly my understanding and compassion towards them. I will more on the job training with actually dealing with the situations to be comfortable with the medications."

5. "Somewhat, feel much more attentive, listen and discuss with colleagues, supporting with discouraging negative behaviors expressed by others."

6. "I am more confident in speaking with the care team and recommending medications."

Question 3: Has the training you received impacted your attitude towards caring for patients with mental illness?

1. "I had a stereotype due to lack of exposure and education."

2. "I have always been passionate about helping provide patient centered care to people who are struggling with mental illness. I am not sure why but I often find myself drawn to find out more about patient's mental health illnesses and diving in creative and evidence-based practices to improve outcomes. Which is why I took this class!"

3. "I've always felt frustrated dealing with this population. Now I try to be more compassionate."

4. "As stated above. I am more understanding, patient, and compassionate."

5. "Training provided me with seeking my own personal beliefs, as opposed to professional ones. I feel now have greater insight; the guests that spoke were profoundly impactful.

Even though I have had many patients over the years with mental challenges, since it didn't apply to the current diagnosis, wasn't something I focused on. (OR, Ambulatory physician practices, surgery practices) That's not to say I/we didn't encourage referring the patient to appropriate resources, and promoting conversations with the patient to identify any risky behaviors."

6. "I have always been compassionate but hearing the NAMI speakers that are not stable I have gained a better understanding of what the patient experiences and how they feel while in the hospital and feel I am able to be a better patient advocate for my patients after sitting in the class."

Ten participants in Session Two responded to the open-ended survey questions. Of those, the 9 participants felt the training they received positively changed their behaviors and 8 believed the training positively impacted their competencies and improved their attitude in caring for individuals with mental illness. The participants were asked how the training impacted their behaviors, competencies and attitudes. Eight participants provided comments for question 1 and seven participants provided comments for questions 2 and 3. Their responses are listed below.

Question 1: Has the training you received changed your behaviors in caring for patients with mental illness?

1. "Having more knowledge of mental illness helps me to make better decision about the care of my patients."

2. "Aware of resources available outpatient for pt."

3. "Increased awareness and better perception."

4. "I feel like I can help support the patient more."

5. "I found the de-escalation techniques to be helpful."

6. "Made me more aware of what my patients are going thru and I learned ways to help them see ways they can help themselves."

7. "I am more comfortable talking to and caring for patients that have a mental illness. I will use techniques from this class to communicate/care for patients with mental illness effectively."

8. "They are everyday people. I loved the speaker from NAMI."

Question 2: Has the training you received impacted your attitude towards caring for patients with mental illness?

1. "I understand more about how to de-escalate aggressive behavior."

2. "More confident in my ability to care for mentally related patients."

3. "Better approach and compassion."

4. "More knowledgeable about medications."

5. "I feel like I have an even more rounded education on how to take care of individuals with mental health issues."

6. "Made me more aware of what is out of their control."

7. "I am more knowledgeable on medications to use and useful communication techniques with patients that have a mental illness."

Question 3: Has the training you received impacted your attitude towards caring for patients with mental illness?

1. "I think I have more compassion."

2. "More compassionate and take more time to listen."

3. "Avoid negative thoughts."

4. "More empathy."

5. "I don't feel dread when reading patient has a psychiatric history."

6. "I am more comfortable which I feel like makes me more caring for patients that have a mental illness."

7. "You never know when someone might be dealing with a mental illness, never judge."

CHAPTER 6

DISCUSSION

The purpose of this project was to design, implement, and analyze an educational intervention designed for generalist, non-psychiatric prepared RNs to: 1) positively impact RNs' attitudes (less stigma) about caring for individuals with mental illness, and 2) improve RNs' self-perceived knowledge and competencies about the symptoms of illness; nursing strategies (assessment, practice, intervention and communication); and psychopharmacology. As stated in Chapter 4, a repeated measures design was used to measure attitudes and self-perceived knowledge and competencies at three time-points; 1) prior to the educational intervention, 2) immediately post-implementation of the intervention and 3) 4 weeks post-implementation of the intervention. Open-ended questions were also gathered 4 weeks post-intervention to understand how the training impacted participants' views of individuals with mental illness, and how they would care for these patients in the future. This chapter provides an interpretation of the findings and discusses implications for the future.

Intervention

The training to improve nurses' attitudes incorporated speakers who were members from the local National Alliance on Mental Illness (NAMI). They shared their personal narratives and experiences in receiving care as patients with mental illness, and provided insight into how patients feel when they are in crisis, how they manage their symptoms, how recovery occurs, and what nurses can do to support and care for individuals in their hospital that are experiencing a mental health crisis. The course also included topics to enhance knowledge and competencies on

nursing practice and interventions related to caring for individuals with serious mental illness, anxiety and depression, suicidal ideation, substance use disorders, and dementia. The feedback from Session One guided revisions in Session Two; for example, participants indicated a PowerPoint presentation would enhance the learning rather than relying on only the resource manual. The participants also wanted more emphasis on specific interventions for specific behaviors. These suggestions were incorporated into Session Two and a result, the overall course evaluations for Session Two went up by 9.5% (3.51 compared to 3.91).

The results of the educational intervention implemented in this project align with the findings from other studies that explored impact of self-perceived competencies of nurses after receiving training on mental illness, diabetes and pain assessment respectively (Huggins, 2016; Phillips, Heneka, Hickman, Lam, & Shaw, 2014; Tschannen, Aebersold, Sauter, & Funnell, 2013). All prior studies reported a positive impact of education on self-perceived competencies, as did this project. This project demonstrated that the 6-hour educational intervention positively impacted participants' attitudes and self-perceived competencies toward caring for individuals with mental illness. Further, the findings from this study indicate that the positive impact of the training may be sustained over time.

The course evaluations from both sessions identified the NAMI speaker portion of the course as being one of the highlights. To quote one participant, "I really appreciated NAMI representatives sharing their personal stories and day to day struggles; this allows me to see how prevalent mental illness is & how highly functioning some patients may be despite needing help commented".

Goal/Aim 1: Improve Nurses Attitudes toward Mental Illness

The results of this educational intervention indicate that the process of training can improve generalist nurses' attitudes towards individuals with mental illness. This is the case whether or not outliers were removed.

One subscale of items from the instrument used to measure attitude, the OMS-HS, examined nurses' attitudes toward mental illness (questions 1, 9, 10, 11, 1 and 15). An analysis of responses to these items indicated that nurses' attitudes improved between pre-intervention and at 4 week post-intervention for Session One ($p = 0.014$), Session Two ($p = 0.018$) and the combined Sessions ($p = 0.000$).

Analyses found that there was no statistical difference between the pre- and post-intervention scores for participants in Session One and Session Two. All participants had clinically significant (lower scores) when comparing pre- and 4 week post-intervention scores on all subscales. When combining the data from these two sessions, there were significant differences. Subscale A was significant excluding outliers ($p = 0.009$) and including outliers ($p = 0.010$) and Subscale C was significant including outliers ($p = 0.037$). The results of this project indicate that RNs had improved attitudes toward individuals with mental illness. These findings support previous studies (Corrigan et al., 2012; Corrigan et al., 2001; Griffiths et al., 2014) that found person contact is most effective in reducing the stigma of mental illness and those that have suggested increasing familiarity with mental illness increases positivity and optimism in caring for patients with mental illness (Giandinoto & Edward, 2014; Patten et al., 2012).

Arvaniti et al. (2009) also examined health care staff attitudes towards patients with mental illness. They found that women, older staff (defined as older than 30 years of age) and

nurses were more prejudice toward individuals with mental illness. The majority of participants in this project were women, older (between the ages of 34-54) and nurses, so one may postulate that they too would have negative and stigmatizing attitudes prior to attending the education intervention, making the OMS-HS trends of decreased stigma at both comparison time points even more interesting. The results of this study reinforce the findings from Arvaniti et al. that nurses have negative attitudes toward individuals with mental illness. However, the participants for this study did not include males and reported age in ranges. Arvaniti et al. defined younger health care providers as those younger than 30. Therefore, this study was unable to determine whether females and older nurses had greater negative attitudes when compared to males and younger nurses.

Goal 2: Self-Perceived Behavioral Health Competencies

Analysis of participant responses to the BHCC pre-intervention and post-intervention four subscales (patient assessment, practice/intervention competency, psychotropic recommendations and resource adequacy) and the total combined score found significantly higher scores excluding outliers ($p \leq 0.002$) or including outliers ($p \leq 0.001$) immediately following the educational intervention. The impact of the training was sustained at 4 weeks post–intervention. While all subscales and the total score remained significant whether or not outliers were excluded at 4 weeks post-intervention, the greatest impact was the subscale of practice and intervention; $p = 0.0140$ (outliers excluded) and $p = 0.006$ (outliers included).

The open-ended questions asked at the 4 week post-intervention time provided important details on the outcomes of perceptions of competencies. Participants felt their knowledge and competencies improved in all areas; medication management, communication, assessment, and knowing when and how to find assistance with needed to support the patient and themselves.

Additionally, the course evaluation comments highlighted the participants' improved feelings of competency immediately after taking the course.

Although significant outcomes were demonstrated with this study, the clinical relevance of the training is just as, or perhaps more important than the statistical results. Participants had improved attitudes and self-perceived competences post intervention. Implementing evidence-based education program in a health care system makes a positive impact on the nurses who take the course, and one can assume, on the care and empathy patents receive.

Limitation

As with any project, there are limitations. The main limitation is the generalizability of the findings due to the small sample size, the participants being drawn from only one health care system and the low response rate for the 4 post-intervention survey. Although there were significant differences between the pre- and 4 post-intervention, only $\leq$ 50% of participants responded. The motivation to complete or not complete the survey was unknown. A possible solution to increase response the response rate for future studies would be to award the CEUs after the successful completion of the 4 week post-intervention survey or offer gift cards/raffle as an incentive. As noted in Chapter 4, the project participants were generally representative the demographic make-up of the WM system, however the project findings cannot be generalized to other health care systems in other parts of the state or nation.

A second limitation of this study are that the nurses who participated in the intervention self-selected to voluntarily participate and therefore may have already been interested in improving their competencies in mental illness. Thirdly, the class primarily focused on interventions applicable to an inpatient setting; however 10 nurses from home health were part of Session One. Having separate session that provide specific interventions for the nurses' work

setting (home health, ambulatory care, emergency department) may improve the participation rate and outcomes.

Fourth, while the project was developed for the generalist nurse, participants were not actively working in mental health at the time of the intervention, nine participants (4 in Session One, 5 in Session Two) did have indicate they had prior experience in mental health and completed the pre- and post-intervention surveys. Two participants (1 in Session One, 1 in Session Two) completed the pre- and 4 week post-intervention surveys. Although excluding these participants from the analysis may have resulted in different outcomes, they were retained because they were not actively working in a mental health setting at the time of the educational intervention.

The short time frame of the project is a fifth limitation. Having only 4 weeks between the educational intervention and the final survey does not address whether the results of the education are sustained over a time frame greater than one month. Future studies of a longitudinal nature need to be done to better understand how nurses' attitudes, knowledge and self-perceived competencies are sustained or change over time.

A final limitation of this project was that the results were not tied to other metrics or key performance indicators that are commonly used in the care of patients with mental illness, such as restraint use, employee and patient injuries and calls for assistance; either from a specialized behavioral health response team or the hospital security / police department, length of stay or through put, recidivism, and patient and staff satisfaction. Understanding how the educational intervention might improve other clinical outcomes, patient safety and quality, and costs would provide further insights into how such an intervention might produce effects that are outside of the scope of the project itself.

Implications

Generalist nurses are ill prepared to care for patients with behavioral health needs. This may be a result of the reduction of psychiatric content in nursing programs that coincided with the reduction of psychiatric beds. Per Adams (2015b) the reduction of the psychiatric curricula drastically limited nursing's focus for all patients. Administrators and faculty in nursing education are in a position to address and improve the education of all nurses. Rutherford (2017) recommended that psychiatric education, at the minimum should include identification of signs and symptoms of a psychiatric need and early intervention, de-stigmatization, and the safety and management of patients with a behavioral health need. When this psychiatric content is added to the basic education of all nurses, all patients benefit.

Until then, a 6-hour educational intervention can positively impact the competencies and attitudes of generalist nurses caring for patients in non-psychiatric settings, and these impacts can last for at least 4 weeks for a subset of nurses. Patients with mental health needs who are admitted to a non-psychiatric setting will benefit from the training generalist nurses receive to improve the nurses' attitudes and competencies in providing care to this population. An educational intervention that focuses on improving the competencies and attitudes of the generalist nurse caring for individuals with mental illness is beneficial, not only for the nurse, but for the patients, the hospital organization and the community.

Sustainability of this educational intervention will depend the commitment of the organization and dedicated resources. The program will require an experienced instructor to teach a monthly class and coordinate with other experts, including representatives from NAMI on their time and availability. Additionally, this instructor will need dedicated time to develop, expand and improve the program. The financial recourses to implement this program are not

insignificant. The nurses attending the program will be in the class room for 6 hours, however this will most likely equate to being out of direct staffing for one shift (8 or 12 hours). There will be the cost of the nurse attending the class as well as the potential for replacing the nurse's direct care shift.

Further work is needed to determine whether or not the impacts are longer lasting. Nursing leaders may want to consider having similar training for nurses providing care at the bedside to assure their staff have the necessary skills to care for all patients in a holistic manner. The project site has expressed a willingness and ability to commit to an on-going educational program for training generalist RN competencies and attitudes for delivering mental health care to patients. For this program to take root and for generalist RNs to feel supported and have the resources they need, training will need to be provided monthly. Plans are underway to meet with the system CNO to present a proposal that includes a system-wide rollout of the course that targets all currently employed RNs in the system, and then becomes integrated into new RN orientation provided during the first six months of employment. A refresher course will be provided thereafter on an annual basis to ensure that essential education reaches all generalist RNs. Additionally, the key performance indicators mentioned above in the limitations section would be tracked and measured with the adoption of the program.

Conclusions

Based on this project's results, an educational intervention that focuses on improving generalist RN attitudes and competencies about caring for patients with mental illness in non-psychiatric settings provides a benefit the nurses caring for patients with mental illness and, one can surmise, to the patients with mental illness these nursing are providing fore. Study results indicated that significant results are sustained 4 weeks after training when the nurses had an

opportunity to put into practice what they had learned. Most notably, program participants perceived that both their competencies and attitudes towards caring for patients with mental illness improved after participating in the educational intervention.

As the number of psychiatric inpatient hospital beds decreases and fewer nurses are choosing psychiatric mental health nursing as a specialty, individuals experiencing a mental health crisis are turning to general hospitals and emergency departments for services. Once there, they are cared for by nurses who may have a negative attitude and/or have limited or no experience in caring for individuals with mental illness. This project demonstrated that a 6-hour educational course can improve the attitudes, knowledge and competencies of the generalist nurse providing care to individuals with mental illness. Similar training programs could be beneficial for other health care systems as the nation continues to be challenged by the shortage of mental health resources available to its citizens.

APPENDIX A: LITERATURE REVIEW MATRIX INCLUDING THEMES

Literature Review Including Themes

Short Citation	Type of Study	Specific Aims	Conclusions (+ / -)	Limitations	Highlights	Themes
(Alexander et al., 2016)	ROL	To review perceptions toward caring for MH patients and highlight challenges	All studies recommended psychiatric mental health education interventions for medical-surgical RNs	Limited studies	9 studies reviewed. Used C. D. Zolnierek's (2009) process for ROL	Perception & attitude
Arboleda-Flórez and Stuart (2012)	Qualitative: narrative review	To identify the success of evidenced based approaches used to disrupt the process of stigmatization	Stigma is an issue with providers and mental health professionals are often seen as part of the problem The approaches work	Limited studies	The 6 approaches are: 1) education, 2) protest, 3) contact-based education, 4) legislative reform, 5) advocacy and 6) stigma self-management	Competency & knowledge
Brunero et al. (2012)	Qualitative: integrative review	To review and research evidence of mental health education programs that have been designed to develop knowledge, skills and abilities of general practitioners	Education that included supervised clinical experience, role play and case scenarios were more effective		25 studies reviewed. There are barriers to implementing education including a lack of interest and/or motivation on the general health professionals	Competency & knowledge

Short Citation	Type of Study	Specific Aims	Conclusions (+ / -)	Limitations	Highlights	Themes
Corrigan et al. (2012)	Meta-analysis	To examine the effects of anti-stigma approaches	Education and contact had positive effects on reducing stigma for adults and adolescents with a mental illness. Contact is better than education on reducing stigma for adults. For adolescents, it was opposite	Outcomes were largely limited to self-report	Dates of review: Inception to October 2010 79 studies reviewed.	Competency & knowledge
Giandino to and Edward (2014)	ROL	To investigate the challenges of staff working in an acute care setting caring for mentally ill patients	Findings included challenges related to:1) experience of fear, 2) negative attitudes, 3) poor mental health literacy, 4) being positive and optimistic in providing care as a profession, and 5) environmental Staff need support and education	Unable to generalize	Dates of Review: 1985-2013 25 articles	Perception & attitude
Giandino to and Edward (2015)	Qualitative: structured interviews	To provide an in-depth description of health professional's experience when caring for patients experiencing co-morbid physical and MI	Staff found patients with mental illness unpredictable and there was an overarching fear of the unknown. Additional training is needed	Small sample size of 6 participants	Six themes emerged; 1) challenging behaviors, 2) environmental and organizational factors, 3) lack of skills, 4) hyper-vigilance and anxiety, 5) duty of care and 6) negative attitudes	Perception & attitude

Short Citation	Type of Study	Specific Aims	Conclusions (+ / -)	Limitations	Highlights	Themes
Grant et al. (2011)	Descriptive	To discuss the use of simulation to address the needs of nurses caring for patients with mental illness	Surmised that increased knowledge, improved skill and performance, increased satisfaction, enhanced critical thinking and greater self-confidence can be achieved as a result of participating in simulation	Not research	Simulation is used to: 1) demonstrate early signs of agitation and how to diffuse, 2) management of SUD, 3) caring for patients with a sense of entitlement and 4) appropriate communication	Competency & knowledge
Huggins (2016)	Qualitative: descriptive with repeated measures design	To determine if nurses' self-perceived levels of competence increases following education and to determine if attitudes toward mental illness changed following education.	Found education improved higher self-perceived BH competency and lowered stigmatizing attitudes BHCC p = .0000 OMC-HC p = .012	Small sample size	6 hour continuing education class for nurses who voluntarily agreed to participate	Competency & knowledge
Karman et al. (2015)	ROL	To determine nurses' attitudes towards patients who self-harm.	Negative outcomes towards self-harm are common among nurses Health care setting and qualification level appear to have influencing factors. Education can help	Small sample size	Dates of Review; 1990 – Nov.2012 15 studies found	Perception & attitude
MacNeela et al. (2012)	Descriptive	To explore attitudes of medical-surgical RNs caring for patient with mental illness	Attitudes toward patients with mental illness are not person centered, suggesting a stereotyped rather than specialized understanding	Not generalizable	13 nurses agreed to participate in a simulated patient and think-aloud task	Perception & attitude

Short Citation	Type of Study	Specific Aims	Conclusions (+ / -)	Limitations	Highlights	Themes
(van der Kluit et al., 2013)	Qualitative; Cross-sectional study	To determine the underlying factors that influence rehabilitation nurses' attitudes toward patients with mental illness	The main factors associated with attitude were feelings of competence and experiences with dealing with patients with mental illness. Perceived support had the strongest association with feelings of competence	Low response rate Not generalizable Did not analyze RNs separate from allied help staff.	Self-report questionnaire was used. The Therapeutic Commitment Scale, the Role Competency Scale were used; 353 surveys were returned, 100 of which were from BSN RNs. (28%)	Perception & attitude
van der Kluit and Goossens (2011)	ROL; integrative	To determine the factors underlying the different attitudes of nurses in general health care toward caring for patients with mental illness	Having a holistic vision, support, and older age were positive factors and workload was a negative factor	The many different cultures where the studies were conducted.	Dates of review: 1989 – 2009 17 articles; 11 quantitative and 6 qualitative Final number was 15 (2 excluded for quality reasons)	Perception & attitude
C. Zolnierek and Clingerman (2012)	Qualitative; case study	To explore a medical-surgical nurse's perceptions of caring for a hospitalized patient with mental illness	Experience characterized by; 1) discomfort, 2) lack of professional satisfaction and 3) difficult	Not generalizable		Perception & attitude

NURSING EDUCATION DEPARTMENT

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Generalist Nurses Caring for Patients with Mental Illness in a Non-Psychiatric Setting

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Contact Hours

3000 New Bern Avenue, Raleigh, NC 27610
Nursing Education Department at WakeMed is an approved provider of continuing nursing education by the North Carolina Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.

APPENDIX C: COURSE OUTLINE

Title of Course: Caring for Patients with Mental Illness: A Primer for Non-Psychiatric Mental

Health Nurses

By the end of the class, attendees will be able to meet the following objectives:

Objective 1

    Describe typical symptoms of common mental health disorders

        a. Outline: Discuss symptoms and diagnostic issues for the following: mood, anxiety

            and psychotic disorders; substance use disorders (dependence and withdrawal);

            and dementia and delirium

        b. Method: Presenter provides lecture with booklet or PowerPoint presentation or

            both and facilitates group discussion, and questions and answers from the

            participants.

        c. Length of module: 45 minutes

Objective 2

    Gain strategies to implement the following nursing functions with people with mental

    illness: assessment, practice and intervention, and communication

        a. Outline: Discuss current best practices related to assessment, practice and

            intervention, and communication; recognizing and therapeutically responding to

            escalating behaviors or patients experiencing suicidal ideations and; strategies for

            developing patient-centered plans of care.

        b. Method: Presenter provides lecture with booklet or PowerPoint presentation or

            both; facilitates group discussion, and questions and answers from the

            participants.

c.   Length of Module: 90 minutes

Objective 3

Be familiar with current updates in psychopharmacology

    a.   Outline: Provide an overview of the most common antipsychotics, antidepressants

        and anxiolytics used during an acute mental health crisis.

    b.   Method: Presenter provides lecture booklet or PowerPoint presentation or both;

        facilitates questions and answers from the participants; and provides a visual handout

        with key information on psychopharmacology

    c.   Length of Module: 30 minutes

Objective 4

Gain insight from the perspective of a person living with mental illness

    a.   Outline: Recovery and living with mental illness: a National Alliance for the Mentally

        Ill speaker presentation

    b.   Method: Guest presenter provides presentation and facilitates audience discussion

    c.   Length of Module: 60 minutes

Objective 5

Develop strategies for professional growth for caring for individuals experiencing a mental

health crisis.

    a.   Outline: Resources and management strategies and reflective activity

    b.   Method: Presenter facilitates discussion and leads activity

    c.   Length of Module: 30 minutes

APPENDIX D: PERMISSION TO USE THE BEHAVIORAL HEALTH CARE

COMPETENCY AND THE OPENING MINDS FOR HEALTHCARE PROVIDERS

SURVEYS

Fw: Permission to use the BHCC

BP **Bird, Paula**
Mon 3/13, 8:04 PM
pbird@wakemed.org ⌄

👍 ↪ Reply all | ⌄

Behavioral Health Care... ⌄
42 KB

Download   Save to OneDrive - University of North Carolina at Chapel Hill

From: Winokur, Beth <Elizabeth.Winokur@stjoe.org>
Sent: Monday, March 13, 2017 6:52 PM
To: Bird, Paula; Rutledge, Dana (drutledge@Exchange.FULLERTON.EDU)
Subject: RE: Permission to use the BHCC

Ms Bird,
Dr. Rutledge forwarded your request to me. You have permission to use the instrument with the following conditions:

You have permission to use the instrument with the understanding that the BHCC be credited to the authors and to the St Joseph Health System in all written materials and presentations. We wish you well with your studies and would appreciate being kept apprised of your progress. If you would, please send an abstract or executive summary of your project when you are done. We are tracking the instrument's use and when possible outcomes.

Because we are tracking the BHCC's use (now translated into at least three languages and used on at least 4 continents), we would love to know your results.

I am attaching a clean copy of the instrument for your use,

Regards,
Beth Winokur, PhD, RN, CEN

From: Rutledge, Dana [mailto:drutledge@Exchange.FULLERTON.EDU]
Sent: Monday, March 13, 2017 11:11 AM
To: Bird, Paula
Cc: Winokur, Beth
Subject: RE: Permission to use the BHCC

Paula - Your project plans sound quite appropriate for use of the BHCC. I am cc'ing Dr. Beth Winokur, who is still at St. Joseph Hospital. She normally responds with the following:

You have permission to use the instrument with the understanding that the BHCC be credited to the authors and to the St Joseph Health System in all written materials and presentations. We wish you well with your studies and would appreciate being kept apprised of your progress. If you would, please send an abstract or executive summary of your project when you are done. We are tracking the instrument's use and when possible outcomes.

Please keep Dr. Winokur apprised of your project and results. Dana

Dana N. Rutledge, RN, PhD
Professor Emeritus, Nursing
California State University Fullerton
657/278-5743

Cal State Fullerton | School of Nursing
T 657-278-3336 | F 657-278-3338
800 N. State College Blvd., Fullerton, CA 92831
Give to SON | SON News | Like Us

From: Bird, Paula [pbird@email.unc.edu]
Sent: Saturday, March 11, 2017 3:39 PM
To: drutledge@fullerton.edu
Subject: Permission to use the BHCC

Dear Dr. Rutledge

I am a Doctor of Nursing Practice student at the University of North Carolina at Chapel Hill. My project will be focusing on providing psychiatric competencies to generalist (non-psych) nurses who are often required to care for individuals with serious mental illness while they wait on a general medical surgical unit waiting for a psychiatric bed to open.

I would like your permission to use the Behavioral Health Care Competency survey as part of my project.

I look forward to hearing from you.

Thank you for considering,
Paula Bird, MSN, RN-C, NEA-BC

RE: Permission to use the OMS-HC

SK   Stephanie Knaak <sknaak@mentalhealthcommission.ca>

👍 ↩ Reply all | ∨

Mon 5/1, 12:18 PM
Bird, Paula ⩔

| 15 item scale with refs_... ∨ | 2014 05 22_OMS-15 Ite... ∨ | Mod |
| 381 KB | 99 KB | 208 K |

⩔ Show all 4 attachments (1 MB)   Download all   Save all to OneDrive - University of North Carolina at Chapel Hill

Hi Paula,

Thank you for your query. Yes, you have permission to use the scale. Please just cite the validation papers that go along with it as acknowledgment.

I have attached a copy of the 15 item scale for you here, as well as the papers in question.

Best of luck with your research!

Best regards,

Stephanie

Stephanie Knaak, Ph.D.
Research Associate, Opening Minds / Chercheure associée, Changer les Mentalités
Mental Health Commission of Canada / Commission de la santé mentale du Canada
350 Albert Street, Suite 1210 / 350, rue Albert, bureau 1210 / Ottawa (ON) CANADA K1R 1A4
C: 250.344.8430 / F: 613.798.2989
www.mentalhealthcommission.ca / www.commissionsantementale.ca

From: Bird, Paula [mailto:pbird@email.unc.edu]
Sent: Sunday, April 30, 2017 6:40 PM
To: Stephanie Knaak <sknaak@mentalhealthcommission.ca>
Subject: Permission to use the OMS-HC

Good Evening Ms. Knaak,

I am a Doctor of Nursing Practice student at the University of North Carolina at Chapel Hill. My project will be focusing on providing psychiatric competencies to generalist (non-psych) nurses who are often required to care for individuals with serious mental illness while they wait on a general medical surgical unit waiting for a psychiatric bed to open. I am also very interested in

determining whether additional education on mental illness will impact (hopefully reduce) stigma.

I would like to use the Open Minds Scale for Health Care Providers as part of my project. Would you be able to grant permission? If not, do you know who I should address for this request?

I look forward to hearing from you.

Thank you for considering,

Paula Bird, MSN, RN-C, NEA-BC

APPENDIX E: THE OPENING MINDS FOR HEALTHCARE PROVIDERS SURVEY

INSTRIMENT

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1. I am more comfortable helping a person who has a physical illness than I am help a person who has a mental illness					
2. If a colleague with whom I work told me they had a mental illness, I would be just as willing to work with him/her.					
3. If I were under treatment for a mental illness I would not disclose this to any of my colleagues.					
4. I would see myself as weak if I had a mental illness and could not fix myself.					
5. I would be reluctant to seek help if I had a mental illness.					
6. Employers should hire a person with a managed mental illness if he/she is the best person for the job.					
7. I would still go to a physician if I knew that the physician had been treated for a mental illness.					
8. If I had a mental illness, I would tell my friends.					
9. Despite my professional beliefs, I have negative reactions towards people who have mental illness.					
10. There is little I can do to help people with mental illness.					
11. More than half of people with mental illness don't try hard enough to get better.					
12. I would not want a person with a mental illness, even if it were					

appropriately managed, to work with children.					
13. Healthcare providers do not need to be advocates for people with mental illness.					
14. I would not mind if a person with mental illness lived next door to me.					
15. I struggle to feel compassion for a person with mental illness.					

OMS-HC15Pre

Opening Minds Survey for Health Care Providers

		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1.	I am more comfortable helping a person who has a physical illness than I am helping a person who has a mental illness. (Original 1)	☐	☐	☐	☐	☐
2.	If a colleague with whom I work told me they had a managed mental illness, I would be just as willing to work with him/her. (Original 3) **R**	☐	☐	☐	☐	☐
3.	If I were under treatment for a mental illness I would not disclose this to any of my colleagues. (Original 4)	☐	☐	☐	☐	☐
4.	I would see myself as weak if I had a mental illness and could not fix it myself. (Original 6)	☐	☐	☐	☐	☐
5.	I would be reluctant to seek help if I had a mental illness. (Original 7)	☐	☐	☐	☐	☐
6.	Employers should hire a person with a managed mental illness if he/she is the best person for the job. (Original 8) **R**	☐	☐	☐	☐	☐
7.	I would still go to a physician if I knew that the physician had been treated for a mental illness.(Original 9) **R**	☐	☐	☐	☐	☐
8.	If I had a mental illness, I would tell my friends. (Original 10) **R**	☐	☐	☐	☐	☐
9.	Despite my professional beliefs, I have negative reactions towards people who have mental illness. (Original 12)	☐	☐	☐	☐	☐
10.	There is little I can do to help people with mental illness. (Original 13)	☐	☐	☐	☐	☐
11.	More than half of people with mental illness don't try hard enough to get better. (Original 14)	☐	☐	☐	☐	☐
12.	I would not want a person with a mental illness, even if it were appropriately managed, to work with children. (Original 17)	☐	☐	☐	☐	☐
13.	Healthcare providers do not need to be advocates for people with mental illness. (Original 18)	☐	☐	☐	☐	☐
14.	I would not mind if a person with a mental illness lived next door to me. (Original 19) **R**	☐	☐	☐	☐	☐
15.	I struggle to feel compassion for a person with mental illness. (Original 20)	☐	☐	☐	☐	☐

Coding

On the 15-item scale: items 2, 6, 7, 8, 14 require reverse scoring.

Outcomes:

Total OMS-HC 15 mean score

Total scale scores could range from 15 to 75 and a lower score indicates less stigma

Subscales:

1. **Attitudes of health care providers towards people with mental illness (5 items = 1, 9, 10, 11, 13, 15)**
    The concepts captured in this subscale relate to general attitudes towards people with mental illness and the role of health care providers

2. **Attitudes of health care providers towards disclosure and help-seeking (4 items = 3, 4, 5, 8)**
    The concepts captured in this subscale relate to self-disclosure of mental illness and help seeking behavior

3. **Attitudes of health care providers towards social distance (5 items = 2, 6, 7, 12, 14)**

    The concepts captured in this subscale relate to a willingness to readily engage persons with mental illness in various activities and relationships

APPENDIX G: THE BEHAVIORAL HEALTH CARE COMPETENCY SURVEY

INSTRUMENT

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1. I can assess patients for potential psychiatric problems.					
2. I can identify signs and symptoms of common psychiatric conditions, e.g., depression, schizophrenia, bipolar disorder.					
3. I can identify common neuroleptic, tranquilizers, and antidepressant medications used with psychiatric patients.					
4. I am able to assess patients for risk of suicide (suicidality).					
5. I recognize behaviors that indicate a patient may have alcohol or drug abuse problems					
6. I can recognize signs and symptoms of alcohol withdrawal.					
7. I can recognize signs and symptoms of drug withdrawal.					
8. I can distinguish between dementia and delirium.					
9. I can recognize the warning signs in patients whose behavior may escalate to aggression or dangerous behavior.					
10. I can initiate appropriate nursing interventions for common psychiatric issues such as depression, bipolar and psychosis.					
11. I can effectively interact with patients who have mental health problems.					
12. I am able to maintain a safe environment for patients on my unit who have psychiatric conditions.					

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
13. I can effectively manage conflicts caused by patients who have mental problems.					
14. I can effectively intervene with a patient having hallucinations.					
15. I am able to use de-escalation techniques and crisis communication to avert aggressive behaviors.					
16. I plan for more time to take care of patients with psychiatric issues compared with my other patients.					
17. I am able to maintain a therapeutic relationship with most patients on my unit who have psychiatric needs.					
18. I am confident that I can recommend use of psychotropic drugs to physicians for appropriate patients.					
19. I recommend psychotropic drugs to physicians for psychiatric patients.					
20. I know when to ask for outside help (i.e., physician, psychiatric nurse, other) for a patient with psychiatric issues or dangerous behaviors.					
21. I call for outside resources (i.e., physician, psychiatric nurse, other) when I recognize that my patient's behaviors are escalating beyond my capabilities.					
22. I am confident that help is available to me when I need assistance with patients who have comorbid behavioral or psychiatric issues					
23. Hospital resources are available to me when I need assistance with behavioral health, psychiatric issues, or substance abuse issues.					

APPENDIX H: NURSING DEMOGRAPHIC SURVEY

1. What is your gender? □Male   □Female

2. What is your age? □18-24 □25-34 □35-44 □45-54 □55-64 □65-74 □75 or older

3. What race / ethnicity best describes you? (please only choose one)

    □American Indian □Asian / Pacific Islander   □Black or African American   □Hispanic

    □White / Caucasian   □Multiple Ethnicity / Other (specify):_____

4. What is the highest nursing degree you have received?

    □Diploma   □ADN □BSN   □MSN   □PhD   □DNP

5. How many years have you been an RN?

    □0-5 years   □6-10   □11-15   □16-20   □21-15   □26-30   □Greater than 30 years

6. What hospital do you work in?

    □Raleigh   □Cary   □North   □Healthplexes □Home Health

7. Do you have experience as a psychiatric mental health RN? □yes   □no

APPENDIX I: NURSING SURVEY ON IMPACT OF TRAINING ON PRACTICE AT 4

WEEK FOLLOW-UP

1. Has the training you received changed your behaviors in caring for patients with mental

   illness? □yes   □no

   a. If yes, please describe how.

2. Has the training you received impacted your competencies in caring for patients with

   mental illness? □yes   □no

   a. If yes, please describe how.

3. Has the training you received impacted your attitude in caring for patients with mental

   illness? □yes   □no

   a. If yes, please describe how.

Generalist Nurses Caring for Patients with Mental Illness in a Non-Psychiatric Setting

Date: January 16, 2018

Time: 0900-1530

Location: WakeMed Raleigh Campus

Andrews Conference Center

Register in Learning Link: NE014-18004

Additional Course Details:

- 5 Nursing Contact Hours will be awarded
- Instructors: Donna Helen Crisp, JD, MSN, RN, PMHCNS-BC & Albert Hedgepeth, PA
- Participants will be part of a QI project that includes completing surveys pre- and post-training and 4 weeks after the training.
- Lunch will be provided

Nursing Education Department at WakeMed is an approved provider of continuing nursing education by the North Carolina Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.

APPENDIX K: UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL IRB

APPROVAL

IRB Notice - 17-0341

I IRB

Reply all |

Today, 7.27 AM

Bird, Paula; Jones, Cheryl B.; Miller, Lisa H

To: Paula Bird
School of Nursing

From: Office of Human Research Ethics

Date: 11/01/2017
RE: Determination that Research or Research-Like Activity does not require IRB Approval
Study #: 17-0341

Study Title: Generalist Nurses Caring for Patients with Mental Illness in a Non-Psychiatric Setting

This submission was reviewed by the Office of Human Research Ethics, which has determined that this submission does not constitute human subjects research as defined under federal regulations [45 CFR 46.102 (d or f) and 21 CFR 56.102(c)(e)(l)] and does not require IRB approval.

Study Description:

Purpose: To teach generalist nurses the competencies they need to safely and effectively care for patients in the community who are experiencing behavioral health or substance use disorder diagnoses.

Participants: Home Health and general hospital RNs from WakeMed Health and Hospitals

Procedures (methods): pre- and post- survey on RN's perceived perception of their level of competency and stigma for safely caring for patients with behavioral health and substance use disorder diagnoses.

Please be aware that approval may still be required from other relevant authorities or

https://outlook.office.com/owa/?viewmodel=ReadMessageItem&ItemID=AAMkAGU3YT... 11/1/2017

APPENDIX L: WAKEMED IRB APPROVAL

ℹ Extra line breaks in this message were removed.

From:	☐ Vanessa Bennett <no-reply@irbnet.org>
To:	▣ PAULA BIRD
Cc:	
Subject:	IRBNet Board Action

Please note that WakeMed Institutional Review Board has taken the following action on IRBNet:

Project Title: [1058712-1] Generalist Nurses Caring for Patients with Mental Illness in a Non-Psychiatric Setting Principal Investigator: Paula Bird, MSN

Submission Type: New Project
Date Submitted: November 1, 2017

Action: APPROVED
Effective Date: November 15, 2017
Review Type: Expedited Review

Should you have any questions you may contact Vanessa Bennett at vbennett@wakemed.org.

Thank you,
The IRBNet Support Team

APPENDIX M: INTRODUCTION LETTER TO PARTICIPANTS OF THE DNP PROJECT

Study Title: Generalist Nurses Caring for Patients with Mental Illness in a Non-Psychiatric Setting

Principle Investigator: Paula Bird

Hello, my I am Paula Bird, Director for Behavioral Health Services, from WakeMed. I am asking you to volunteer to take part in a performance improvement project as part of my Doctor of Nursing Practice degree about whether education can improve nurses' self-perceived competencies in caring for patients with mental health problems, and improve attitudes toward patients with mental illness.

Surveys will be completed at three time points: a) before the training, b) immediately after the training, and c) at 4 weeks post training. There are no foreseeable risks for participating in this project. Your confidentiality will be maintained by having each participant create their own unique identifier on the survey forms. You may elect to not participate in completing the surveys at any time.

You are welcome to attend the training without completing the surveys.

Participants may request the aggregated results upon study completion.

Participants can contact me at 919-630-7472 any time you have questions about the project.

Your participation in this project is voluntary, and you will not be penalized if you decide not to participate or decide to stop.

Are there any questions?

APPENDIX N: BOXPLOTS AND VIOLIN PLOTS FROM DATA ANALYSIS

Session: Pre-Intervention (OMS1) versus Post-Intervention (OMS2) OMS-HC Results
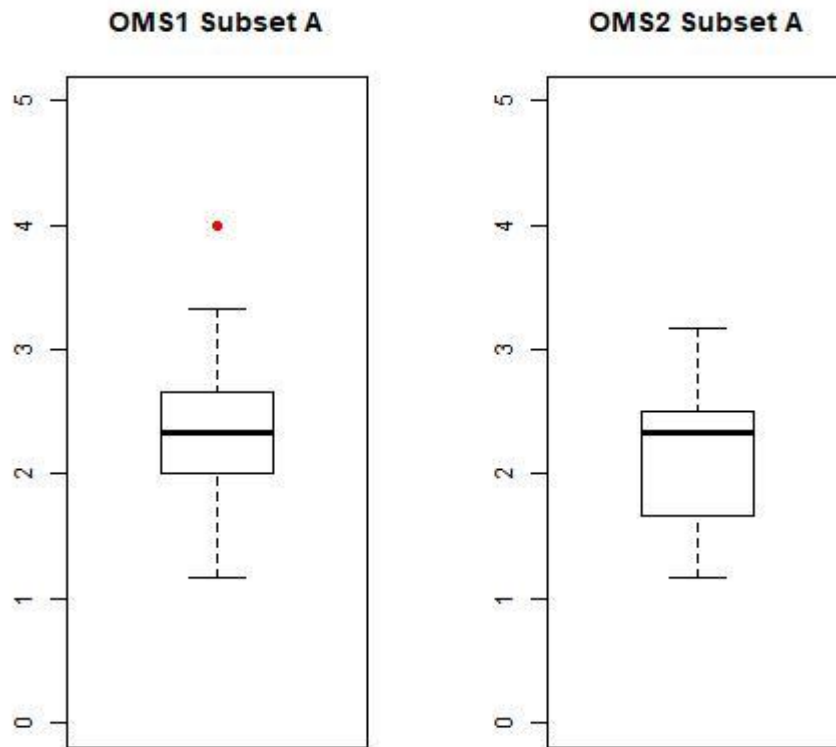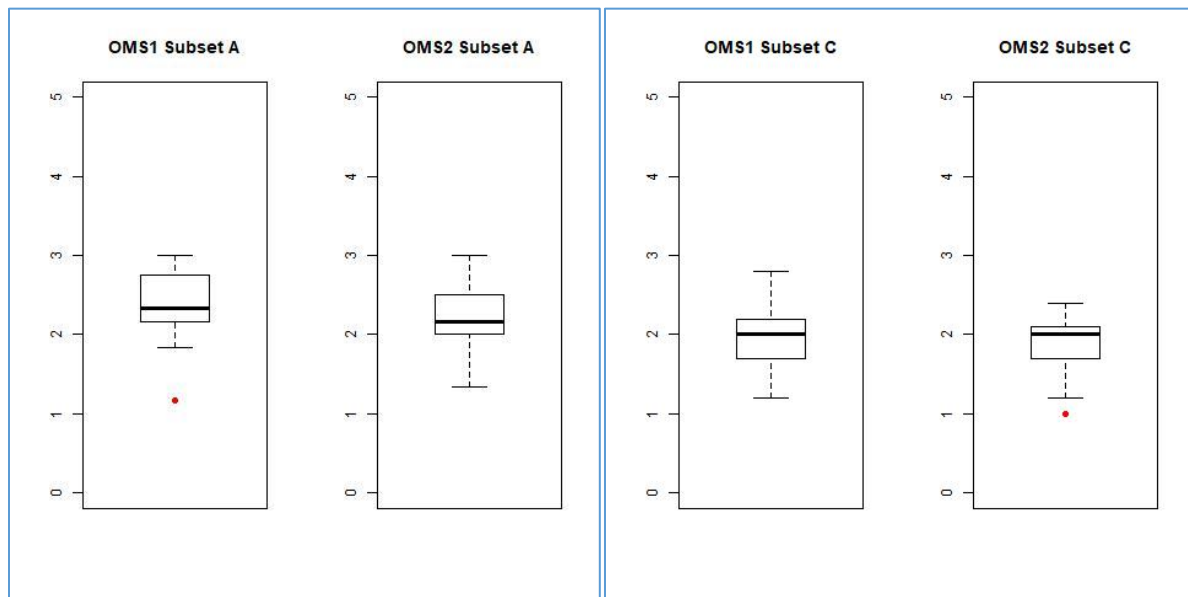

Outlier found in OMS-HC 1 Subscale A

Session One: Pre-intervention (OMS1) versus 4 Week Post-Intervention (OMS3)
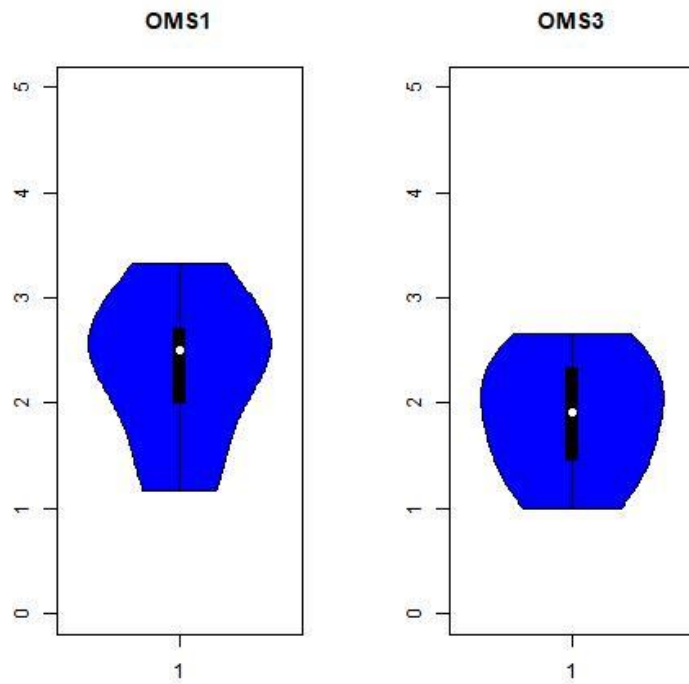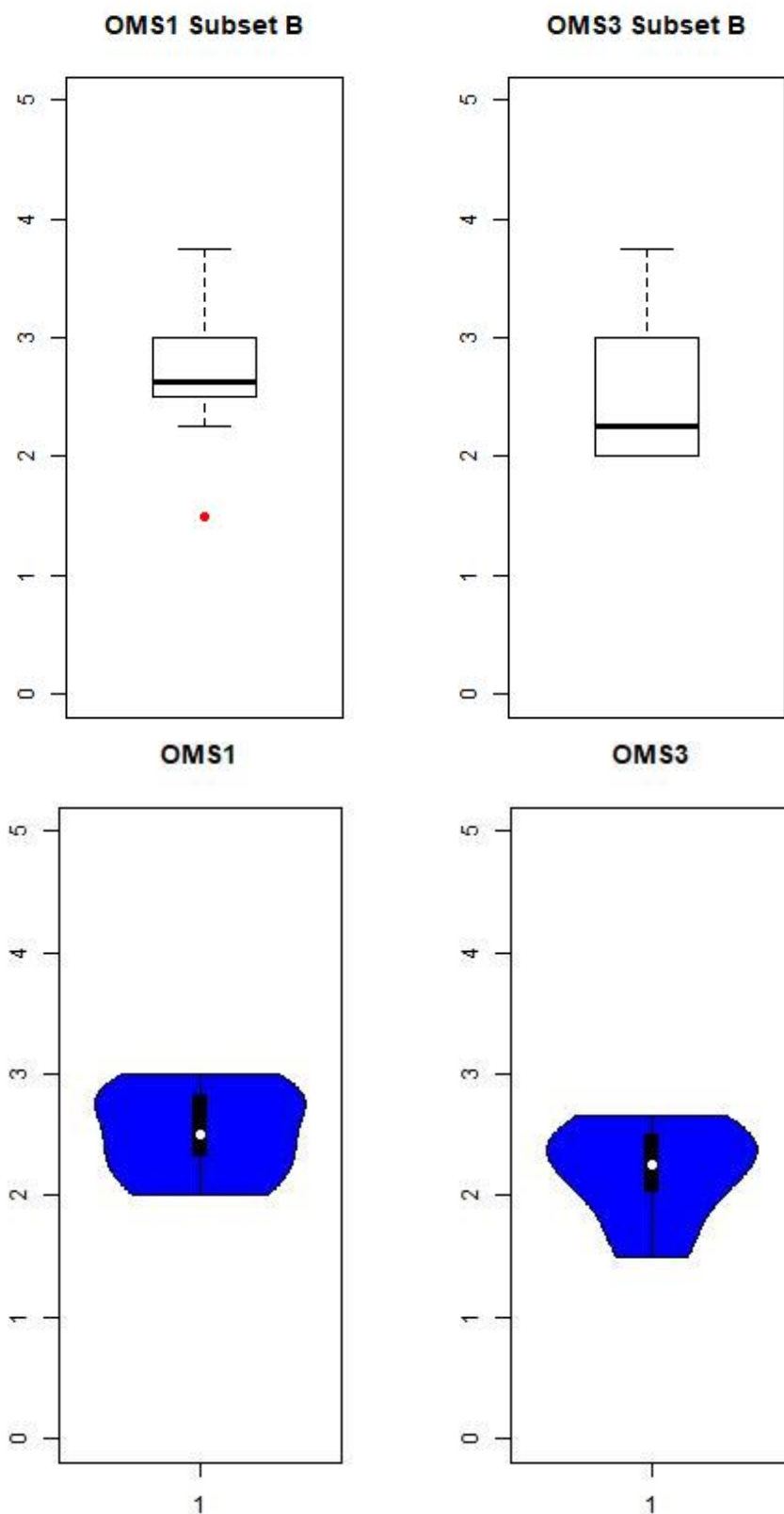
OMS-HC Results

Violin plot showing significant difference between OMS-HC pre-intervention and OMS-HC 4 week post-intervention for Subscale A in Session One

Session Two: Pre-Intervention (OMS1) versus Post-Intervention (OMS2) OMS-HC Results

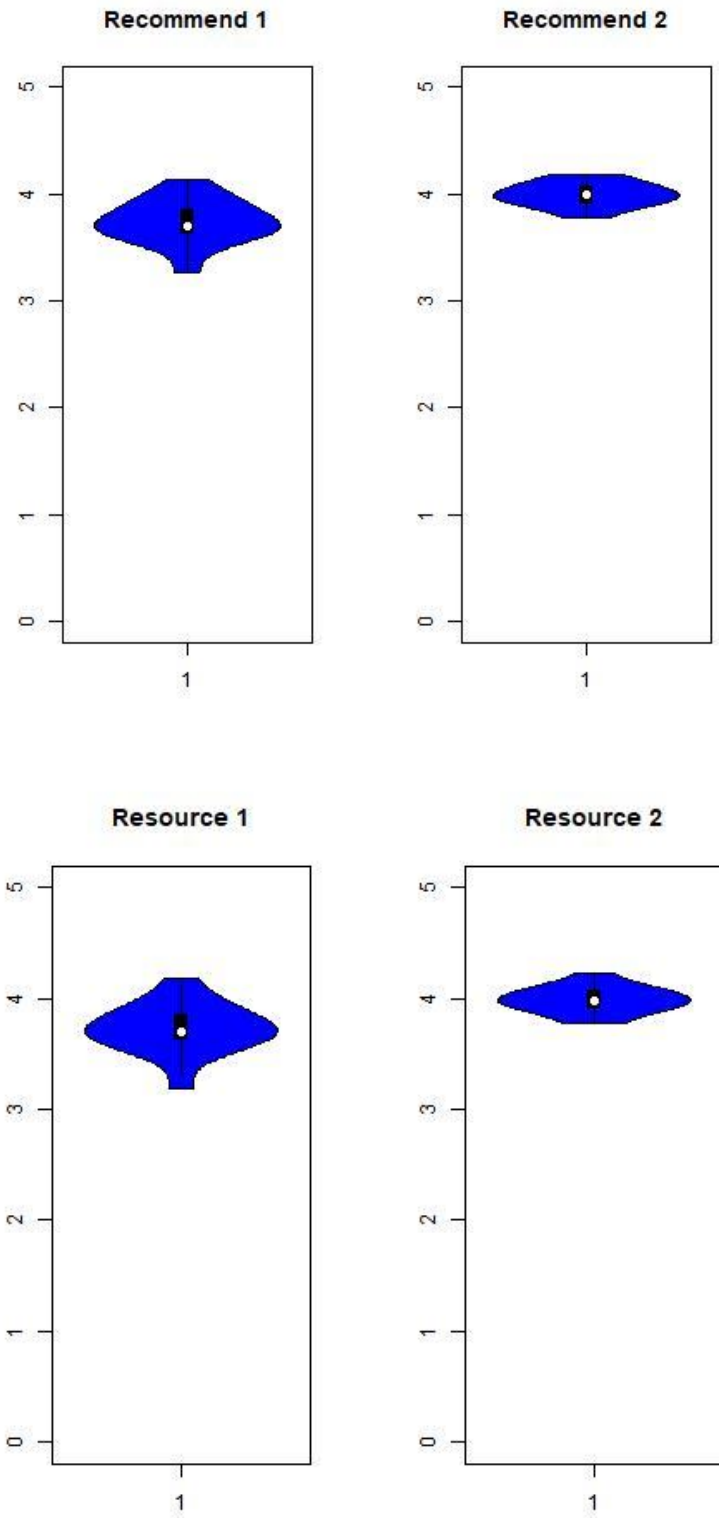**Session Two: Pre-Intervention (OMS1) versus 4 Week Post-Intervention (OMS3)**

OMS-HC Results

Session Two: Pre-Intervention (1) versus Post-Intervention (2) BHCC Results

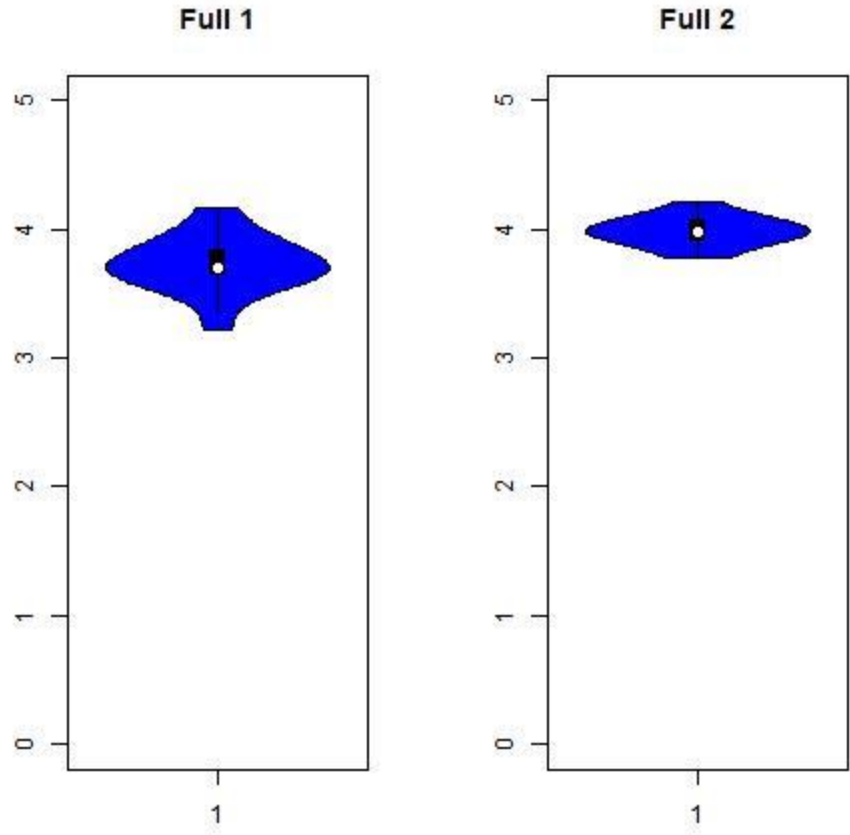**Session Two: Pre-Intervention (1) versus Post-Intervention (2) BHCC Results, continued.**

Session Two: Pre-Intervention (1) versus Post-Intervention (2) BHCC Results, continued
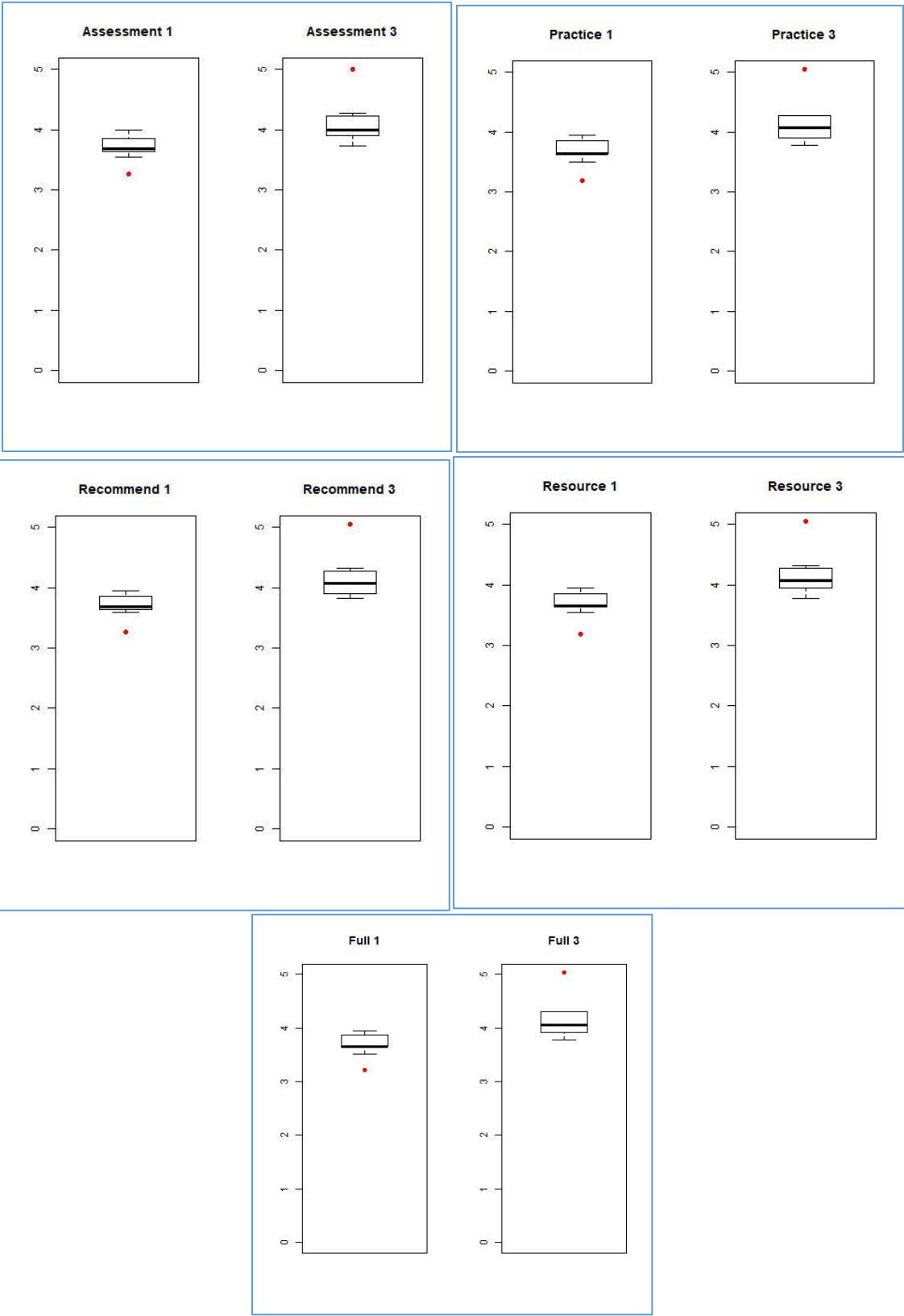
Session Two: Pre-Intervention (1) versus Post-Intervention (2) BHCC Results, continued

Session Two: Pre-Intervention (1) versus Post-Intervention (2) BHCC Results, continued
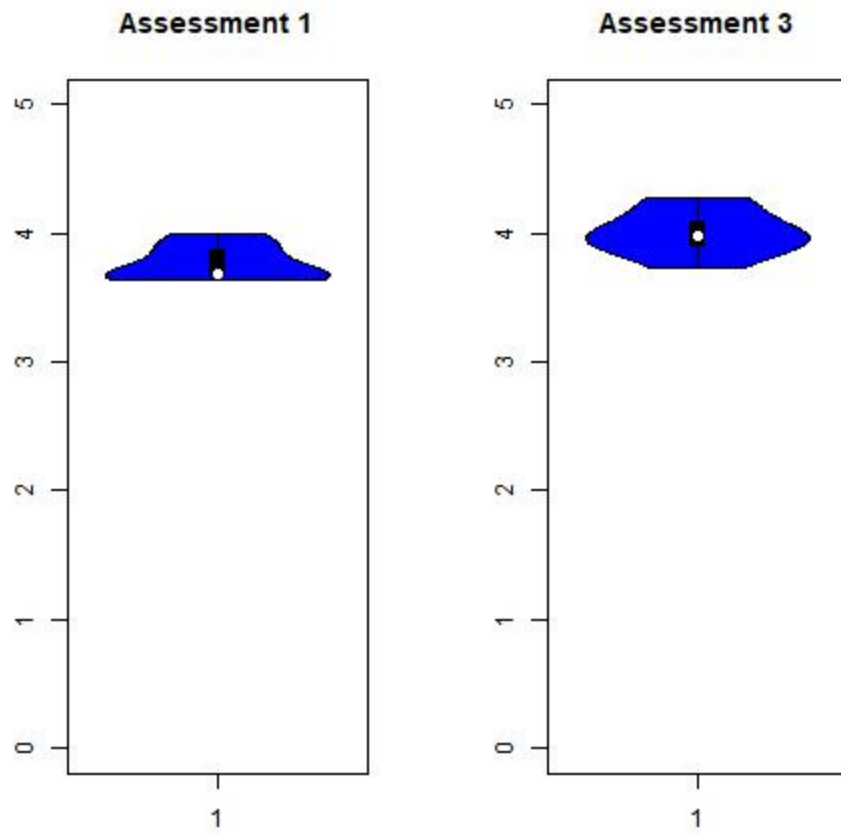
Session Two: Pre-Intervention (1) versus 4 Week Post-Intervention (3) BHCC Results
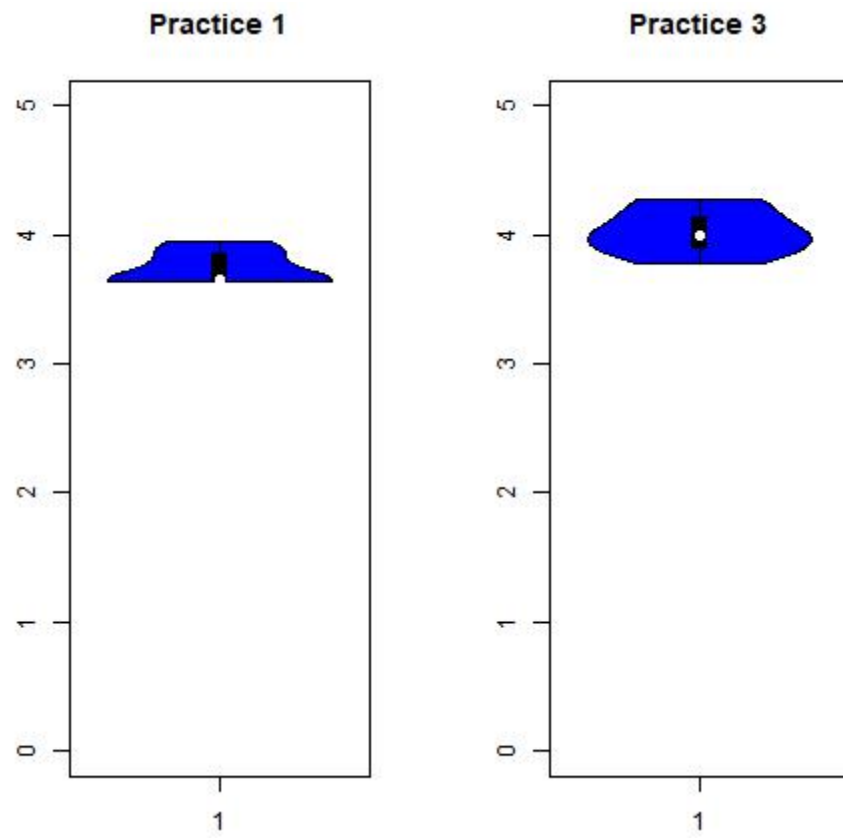
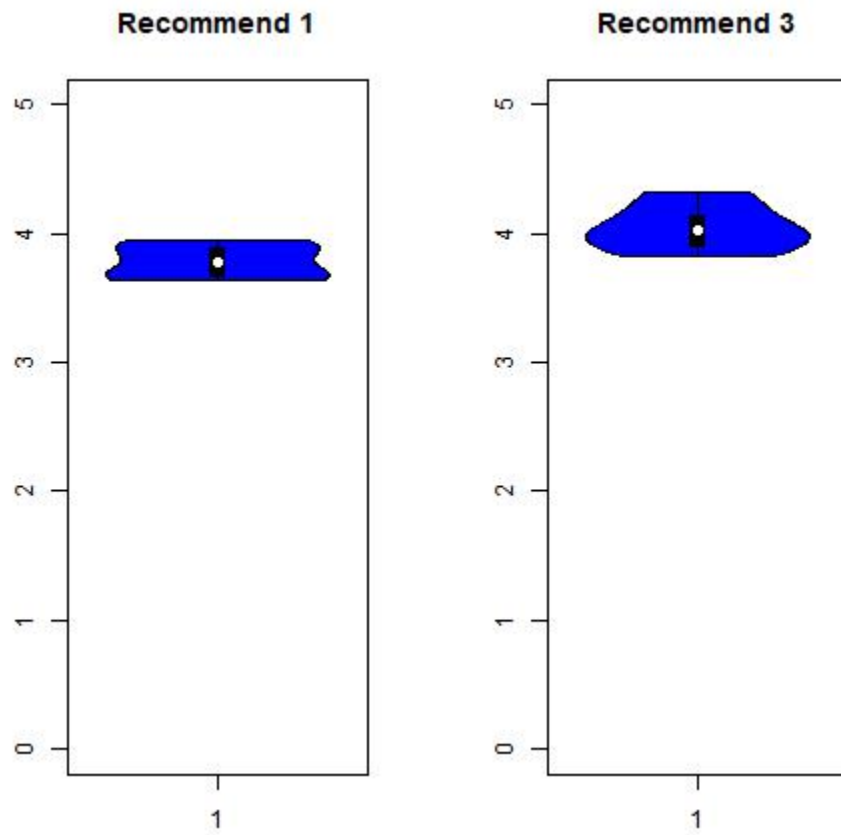**Session Two: Pre-Intervention (1) versus 4 Week Post-Intervention (3) BHCC Results,**

Continued

Session Two: Pre-Intervention (1) versus 4 Week Post-Intervention (3) BHCC Results,
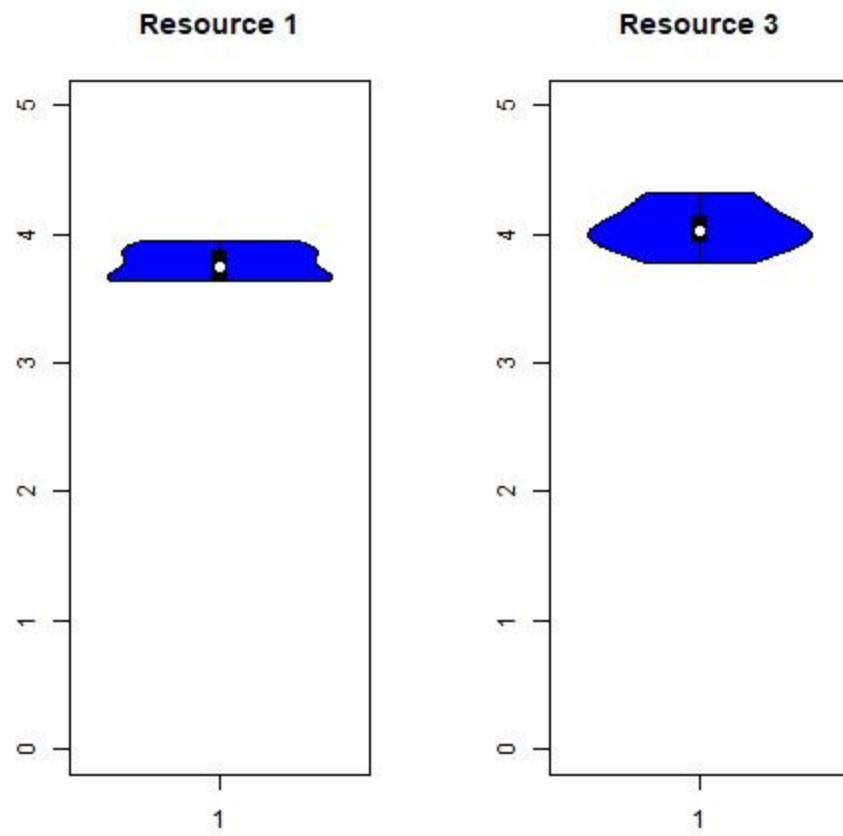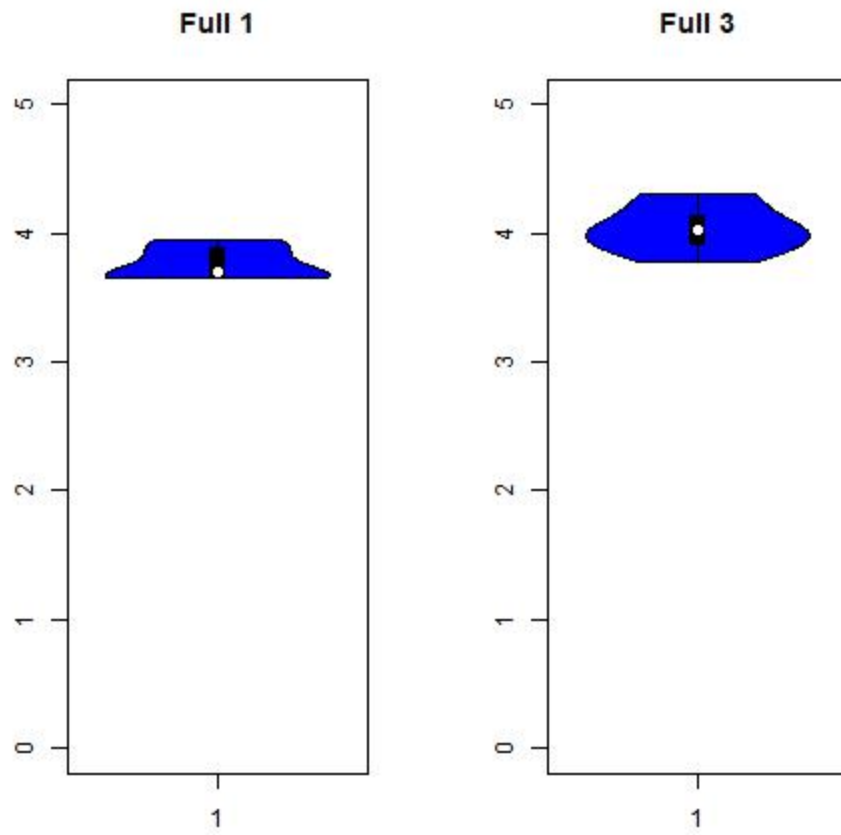
Continued

Session Two: Pre-Intervention (1) versus 4 Week Post-Intervention (3) BHCC Results,

Continued

Session Two: Pre-Intervention (1) versus 4 Week Post-Intervention (3) BHCC Results,

Continued

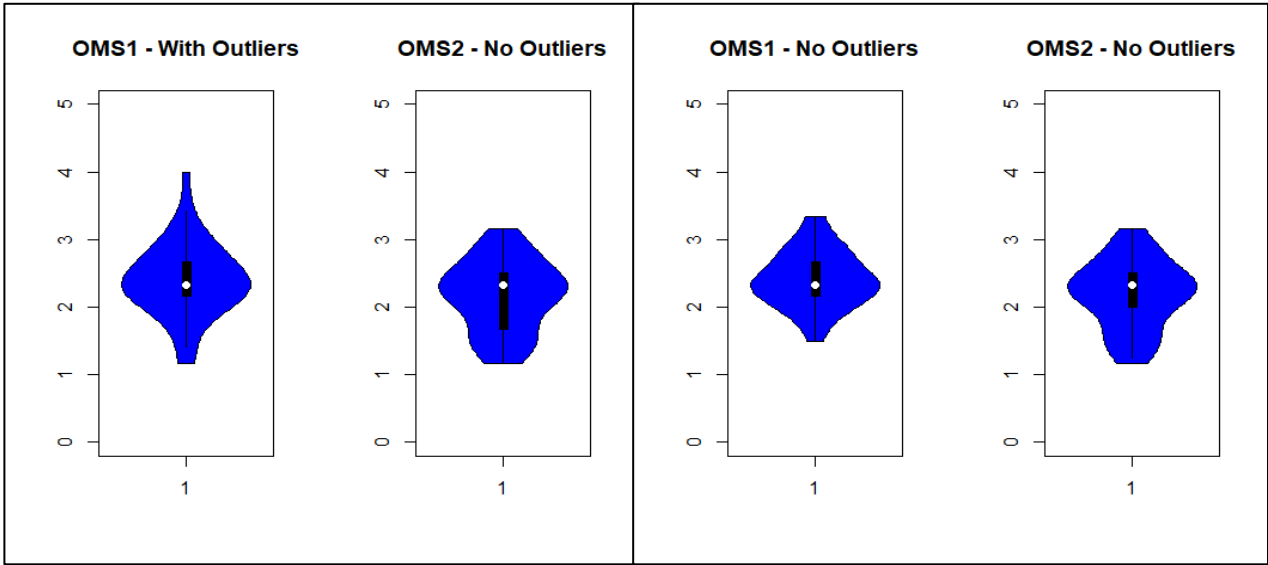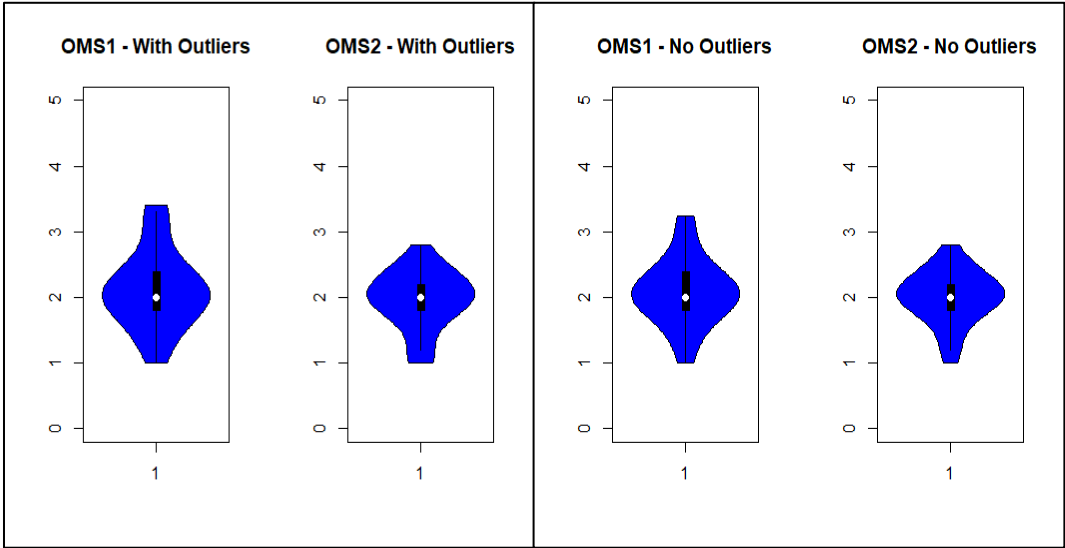**Session Two: Pre-Intervention (1) versus 4 Week Post-Intervention (3) BHCC Results,**

Continued

Full 1

Full 3

Combined Sessions: Pre-Intervention (1) versus Post-Intervention (2) OMS-HC Results

Combined Data, Subscale A

Combined Data, Subscale C

Nursing Education Department at WakeMed

<div style="border:1px solid">

Overall Satisfaction: 3.53
Speaker Average: 3.46
Overall Class Score: 3.49

</div>

Participant Feedback Tool

Activity Title: Generalist Nurses Caring for Patients with Mental Illness in a Non-Psychiatric Setting

Date: December 12, 2017

Activity #: NE014- 18004
Number of Contact Hours: 5

Location: Raleigh

		Excellent	**Good**	**Fair**	**Poor**
I.	**Please evaluate your overall satisfaction with the content of this program.**	**3.53**	❒	❒	❒
II.	**Please evaluate each presenter.**				
	Donna Helen Crisp, JD, MSN, RN, PMHCNS-BC	**3.21**	❒	❒	❒
	Albert Hedgepeth, PA	**3.17**	❒	❒	❒
	NAMI	**4**	❒	❒	❒

III. Identify one idea from this presentation that you will use in your practice setting:

- The idea that mental illness does not equal aggression
- I will take time to actively listen to patients to ensure all needs are identified in the mental and physical setting.
- Need more information about interventions – only a few were discussed but the ones that were presented were helpful
- I will be more aware of my own experiences dealing with mentally ill patients. That way I can have a more unbiased view of them as a person without relating my own experience to them.
- Be present in the moment
- I really appreciated NAMI representatives sharing their personal stories & day to day struggles – this allows me to see how prevalent mental illness is & how highly functioning some patients may be despite needing help
- Considering the source of a patient's suffering
- Will try to read the strategies to help form a plan for patients that are manipulative or have compliance issues
- Listening, treating patient as an individual; showing support, resources of individuals
- I will now look at patients with mental illness as that is part of them but not who they are
- Removing my personal judgmental thoughts regarding our addicted patients. "I thought they chose it" – zero experience in this aspect other than our post-op drug seekers

- Nurses reducing patient suffering; NAMI speakers stating they remember how someone makes them feel
- NAMI made the education real and improved my understanding of mental illness
- Advocate for patients to get home meds started to hopefully avoid BHRT's
- The presenters with their mental illness was very informative hearing how they feel & felt
- The patient is not the disease
- The medications used/dosages for these patients; Putting a face to mental illness (NAMI speakers) was wonderful. Thank you for them. As health care providers we need to hear these stories to help us better care for our mental health population
- Greater focus on being & staying present
- It was a nice reminder to be more empathetic
- Understand how to approach mentally challenged patients and awareness of their medication
- Will make an awareness of identifying someone who needs help
- So many helpful tips! I am excited to have a reference in Donna Helen's "Primer for Non-Psych Nurses".

IV. Please suggest any improvements to the learning activity content or structure:
- NAMI was very effective. I would try to have more speakers
- Start with NAMI; less printed material; more focus on normalization & interventions
- Less reading & more real life scenarios/interviews
- Have NAMI presentation first
- I appreciated the answers NAMI presenters provided after being asked pointed questions by presenter Donna Helen – I thought Donna Helen may have been a little too direct with some of her questions with such a large audience listening.
- More role play/interactions with us; How can nurse help after being & listening; also read response cards from definitions – otherwise, what was the point of that exercise?
- Speakers need to speak louder, and allow more time for questions, collaboration; consider all practice settings, mainly geared towards hospital setting
- Would like the first section to follow outline & go over the various mental illnesses, s/s & strategies vs. skipping around the book & giving a cursory glance to the various topics
- It was at times difficult to follow the flow of what Donna Helen was speaking about
- This was awesome, I've been a nurse for 26 years and my eyes were open to mental health
- Increase class time by at least an hour for collaboration/discussion; NAMI excellent!
- NAMI excellent
- I believe a class focused on motivational interviewing or trauma informed care would be very beneficial or class on specific interventions for psych patients

- Would have preferred to get more education on the topics listed (in handout) and discuss the topics rather than hear the speaker's job experiences and what struck her about the situation without actually discussing the topic
- Bring the two with mental illness in first as it highly motivates participation
- Great – please repeat for the rest of the HH staff
- Need PowerPoint to look at, help keep attention during presentation; be nice to have charts/data to look at as well; also more time for nursing questions regarding care of psych patients
- NAMI information available
- Generalizing the teaching; involve more healthcare personnel in this training. Mental illness is becoming more and more a huge issue even among care givers themselves.
- Please provide more specific indications for when to administer medications

Statement of Disclosure

1. Participants must attend the entire session in order to earn contact hour credit. No partial credit will be provided. Verification of participation will be noted by learner initial/signature on the roster.
2. Planners and presenters have declared the absence of any real or perceived conflict of interest which might influence the planning of this activity.
3. No commercial support has influenced the planning of the educational objectives or the content of this activity. If there were any commercial support provided for this activity, it would be used for events that are not related to continuing education.

For office use: Excellent = 4; Good = 3; Fair = 2; Poor = 1

Nurse Planner Comments (including reflection on Learning Outcome)**:** 22 of 24 respondents indicated on their course evaluation at least one idea from the presentation that they would incorporate in their practice. With current agenda, have ~ 30-40 minutes that could be used to allow for additional time for discussion, questions and collaboration. Having attended the presentation and myself being more of an auditory learner (and having 16 years of nursing experience), the presentation style worked for me. However, for those more visual and kinesthetic learners, will discuss with planning committee ideas for incorporating more visual and kinesthetic learning opportunities. **LEARNING OUTCOME: Pre to Post-test scores??**
Number of RN participants: 22   **Number of non-RN participants: 3**

Nursing Education Department at WakeMed

Overall satisfaction: 3.94
Speaker average: 3.87
Overall class score: 3.91

Participant Feedback Tool

Activity #: NE014- 18004
Number of Contact Hours: 5

Activity Title: Generalist Nurses Caring for Patients with Mental Illness in a Non-Psychiatric Setting
Date: January 16, 2018

Location: Raleigh

	Excellent	**Good**	**Fair**	**Poor**
V. Please evaluate your overall satisfaction with the content of this program.	3.94	❐	❐	❐
VI. Please evaluate each presenter.				
Donna Helen Crisp, JD, MSN, RN, PMHCNS-BC	3.89	❐	❐	❐
Lauren Wright, PA-C	3.83	❐	❐	❐
NAMI Presenters: Aimee	3.88	❐	❐	❐

VII. Identify one idea from this presentation that you will use in your practice setting:

- How to better care for psychiatric patients with an "open heart"
- Appropriate intervention in dealing with aggressive and violent patient
- Therapeutic touch, policies
- Make sure patient can afford meds prescribed; look into less expensive meds for patient
- Therapeutic response; Remembering to say "recovery is possible"
- Be able to handle agitated patients better; NAMI: Aimee's story is such an eye opener
- To ask the patient more about themselves
- I have more knowledge about meds
- Be more present in the moment with my patients
- Do not treat patients as their diagnosis but for it
- Use of resources to deal with certain patients, better/more suitable medications and great tips to apply in difficult situations.
- When Aimee told us her story and how she wished healthcare providers would see her as a person, not an illness
- De-escalation techniques with agitated patients
- Recognizing changes in behavior to de-escalate situations
- Pay attention to behaviors, identify anxiety or other underlying issues
- Good overview – review
- Monitoring Ativan usage for Librium recommendation and lab recommendation for lithium and Depakote

VIII. Please suggest any improvements to the learning activity content or structure:

- Great class – Great information – a lot of good resources provided
- Aimee was an excellent speaker as a person in recovery
- Excellent handouts
- Very interesting program
- Aimee – awesome!! ☺ Thanks!!
- Outstanding, thank you!
- Perhaps time for a round table would be interesting?
- I would have loved to see and hear from more people with mental illnesses. I think their input was key in driving information home!
- Would like more strategies to assist with peds patients
- Demonstrations
- Too many personal stories – how about brainstorming as nurses together on our concerns at work to better care for our patients
- More de-escalation technique coverage

Nursing Education Department at WakeMed is an approved provider of continuing nursing education by the North Carolina Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.
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For office use: Excellent = 4; Good = 3; Fair = 2; Poor = 1

Nurse Planner Comments (including reflection on Learning Outcome)**: This was the 2nd offering of this course. Scores and comments were very positive. 17 of 18 respondents indicated on their course evaluation at least one idea from the presentation that they would incorporate in their practice. Learning Outcome:**
Number of RN participants: 20   Number of non-RN participants: 0

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