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Psychiatric-Mental Health Nurses' Confidence and Preparedness for Integrated Care

Virginia Lewis

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PSYCHIATRIC-MENTAL HEALTH NURSES' CONFIDENCE AND
PREPAREDNESS FOR INTEGRATED CARE

by

Virginia Lewis

A Doctoral Project
Submitted to the Graduate School,
the College of Nursing and Health Professions
and the School of Leadership and Advanced Nursing Practice
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Nursing Practice

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ABSTRACT

Individuals suffering from serious mental illness (SMI) often suffer concurrent with chronic medical illnesses such as cardiovascular disease, hypertension, diabetes, and obesity. Those individuals with SMI have higher morbidity and mortality rates and require more healthcare services than individuals without SMI (Rao, Raney, & Xiong, 2015). Medical illnesses are often overlooked in the behavioral health setting because mental health care providers' lack training and knowledge about medical illnesses. Lack of confidence also plays a role in treating concurrent medical illnesses. Psychiatric mental health nurses in behavioral health settings mainly focus their attention on the aspects pertinent to mental illness and often neglect the medical illnesses that are also present. Because of trends towards provision of care more holistic integrated care, psychiatric mental health nurses will need essential knowledge and skills in recognizing, assessing, treating, and referring to those with medical related problems. The purpose of this project was to determine whether psychiatric mental health nurses are prepared and have the confidence to provide integrated care in a behavioral setting. Four registered nurses completed the confidence survey and pre and posttest. Pretest results revealed that nurses could benefit from continuing education interventions. Posttest results revealed that educational interventions can help prepare nurses to work in an integrated setting. The confidence survey revealed that nurses felt more confident working in an integrated setting. Findings from the project indicated that evidence-based educational interventions can increase nurses' confidence and prepare them to work in an integrated setting.

ACKNOWLEDGMENTS

First, I would like to give honor to God “for I know the plans I have for you” (Jeremiah 29:11). Next, I would like to thank my committee members, Drs. Bonnie Harbaugh and Cathy Hughes for taking time out of their busy schedule, supporting, and guiding me through this process. I would like to send a sincere thank you to Sonia Adams. Sonia, thank you for your kindness and support words are not enough to express how grateful I am to have had you in this season of my life. Lastly, I would like to thank Dr. Crockett, Executive Director at Hinds Behavioral Health Services, for giving me an opportunity to complete my project at her facility. I am grateful for the knowledge on integrated care that you provided along with your support and encouragement.

DEDICATION

I would like to dedicate this project to my husband, Jerry Lewis; two beautiful daughters, Jerrica and Jerriona Lewis; my mother, Margaret Smith; and grandparents, Bobby and Betty Smith, for their love, support, prayers, and encouragement throughout this journey and all my educational endeavors.

TABLE OF CONTENTS

ABSTRACT ii

ACKNOWLEDGMENTS iii

DEDICATION iv

LIST OF TABLES viii

LIST OF ABBREVIATIONS ix

CHAPTER I - INTRODUCTION 1

 Background and Significance 2

 PICO/Project Question..... 5

 Problem Statement 5

 Purpose of the Project 5

 Theoretical Framework 6

 DNP Essentials..... 6

 Needs Assessment..... 8

 Synthesis of the Evidence 10

 Integrated Care..... 11

 Warm Hand Off 11

 Behavioral Health 11

 Psychiatric Mental Health Nurse 12

 Summary 12

CHAPTER II - METHODS	13
Setting	13
Population	14
Data Collection and Procedures	14
Design	15
Pretest and Posttest Instruments.....	15
Ethical and Human Subject Issues	15
Data Analysis	16
Summary	16
CHAPTER III - RESULTS.....	17
Analysis of Data.....	17
Summary.....	18
CHAPTER IV – DISCUSSION.....	20
Limitations	21
Future Practice Implications	21
Conclusions.....	22
APPENDIX A – IRB Approval Letter	23
APPENDIX B – Integrated Care Confidence Survey for Registered Nurses Pre- and Post-Test	24
APPENDIX C – Pre- and Post-Test.....	25

REFERENCES 26

LIST OF TABLES

Table 1 Nursing Preparedness Knowledge Scores	18
Table 2 Nursing Confidence Survey Scores	18

LIST OF ABBREVIATIONS

AHRQ	Agency for Healthcare Research and Quality
ANA	American Nurses Associations
APNA	American Psychiatric Nursing Associations
DNP	Doctor of Nursing Practice
DSM	Diagnostic and Statistical Manual
FQHC	Federally Qualified Health Centers
HRSA	Health Resources and Services Administration
IRB	Institutional Review Board
NIMH	National Institute of Mental Health
PMH	Psychiatric Mental Health
SAMHSA	Substance Abuse and Mental Health Services Administration
SGA	Second-Generation Antipsychotic
SMI	Serious Mental Illness

CHAPTER I - INTRODUCTION

Mental illnesses are conditions that have an impact on one's feeling, mood, behavior, and ability to think. An individual's feelings, thoughts, and behaviors are often changed in bizarre and complex ways due to the illness's impact on the brain structure. Mental illnesses usually precipitate distress in the patient and can range from mild to severe. Disorders are considered severe when they have a straight impact on brain structure and functioning and can cause the most difficulty for those affected individuals and their families (Amann et al., 2015).

Severe mental disorders generally have an increased amount of symptoms with an extended period and intensity. Severe mental illnesses can impact the ability of the individual to care for their health properly. For this reason, those patients with severe mental illness often have myriad health problems. The term severe mental illness (SMI) can also be used interchangeably with serious mental illness. Schizophrenia, schizoaffective, and bipolar diseases are SMIs precipitated by alterations in brain structure and function. These illnesses are treated intensively with medication and therapy (Amann et al., 2015).

On the other end of the mental health spectrum is mild or non-SMIs. Non-SMIs generally result in psychosocial issues. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), diagnosis of a psychosocial issue should consist of the stress that triggered the individual's reaction and the individual's reaction to a stressor (American Psychiatric Association [APA], 2010). Individuals diagnosed with psychosocial problems generally have stressors related to personality, profession, relationship, academic, belief, and stages of life. Various types of therapy can be used to

treat mild mental illnesses. Treatment with medication is required when symptoms are extreme and affect one's daily performance.

Individuals suffering from behavioral and addiction disorders live shorter lives than the typical person, mainly related to untreated and avoidable chronic illnesses that are exacerbated by mediocre or absent self-care activities (SAMHSA-HRSA, 2014). Abusing substances, lack of exercise, and unhealthy diets all contribute to poor self-care. Additionally, some antipsychotic medications have unpleasant side effects that can interfere with self-care and contribute to health problems in the mentally ill.

Background and Significance

The National Institute of Mental Health (NIMH) (2017) states that about 44.7 million adults experience some type of mental disorder. This number includes about 10.4 million adults in the United States who have an SMI, which represents about 4.2% of adults living in the U.S. (National Institute of Mental Health [NIMH], 2017). There are also gender and age disparities in the incidence of SMI. The presence of SMI was greater among women at a rate of 5.3% than it was for men at 3.0%. Further, SMI affects younger adults more frequently. For adults in the age range of 18-25 years, the presence of SMIs were greater than both those aged 26-49 years (5.3%), and those aged 50 years and up with a rate of 2.7% (NIMH, 2017).

Length of life is also an area in which disparity exists for the SMI. Significantly, individuals with SMI have a life expectancy that is two and a half decades shorter than the normal population (Colton & Manderscheid, 2006). This disparity is related to the scarcity and relative difficulty of the SMI to access primary and preventable healthcare. Further, those individuals with SMI's chances are doubled to triple in risk for developing

diabetes, dyslipidemia, hypertension, and obesity (Newcomer & Hennekens, 2007). Compton, Daumit, and Druss (2006) reported that those individuals suffering from SMI use 33% or more of tobacco products, and the majority of people with SMI smoke tobacco, a significant risk factor for developing heart disease. Not surprisingly, Osborn, Levy, and Nazareth (2007) reported that adults with SMI had a greater chance of dying from heart disease, stroke, and lung cancer. However, Bobes, Arango, Arnada, and the CLAMORS Study Collaborative Group (2012) stated that while the presence of metabolic syndrome (diabetes) and cardiovascular risk for individuals with SMI is only slightly higher than the general population, there is a significant difference in their accessibility and use of medical care as well as the effects of poor self-care.

Also driving up healthcare risks for the SMI are the use of medications specifically for regulating mental status. Psychiatric medications have the ability to aggravate cardiovascular and metabolic conditions (Rao et al., 2015). The American Diabetes Association (2004) issued recommendations on monitoring antipsychotic-induced obesity and diabetes to better control these conditions, but the promotion of these recommendations has been prolonged. Mackin, Bishop, and Watkinson (2007) found that providers do not acknowledge the increase in obesity and dyslipidemia in mentally ill patients in a timely manner for several reasons, including lack of knowledge on how to treat these diseases, lack of convenient referral mechanisms, unwillingness to increase the mental stress of individuals who will have the burden of more self-care activities, and deciding that the benefits of the medication outweigh the weight and metabolic risks.

Comorbid diseases are often disregarded in patients with an SMI in a behavioral or mental health setting. According to Sartorius (2013),

. . . comorbidity is the simultaneous presence of two or more diseases that will worsen the prognosis of all the diseases that are present, lead to an increasing number (and severity) of complications, and make the treatment of all of them more difficult and, possibly, less efficacious. (p. 68)

Comorbid diseases are commonly seen in those people with mental health issues.

Behavioral health settings generally only have psychiatric mental health providers. Medical illnesses are overlooked in the behavioral health setting because of a lack of knowledge about medical disorders. The lack of confidence recognizing, diagnosing, and treating medical disorders have an effect as well. Most psychiatric mental health providers assume medical illnesses are being taken care of by patients' primary providers, and for the reasons stated earlier, make mental care their primary concern.

The integration of primary care into a behavioral health setting will help reduce the barriers to health faced by individuals with SMI and their healthcare providers. The goal of integration of primary care into the behavioral health setting is also to reduce health disparities and address major mental as well as physical health issues. Individuals with SMI can make one visit, but see health providers who can address a variety of health issues. Integrated care will allow patients' mental and medical needs to be taken care of simultaneously, reducing barriers such as transportation and missing appointments for one or the other problem. The psychiatric mental health (PMH) registered nurses providing care in an integrated setting will need essential knowledge and skills to recognize, assess, treat, and refer individuals needing care for physical issues to providers who care for medical related problems within their integrated setting.

PICO/Project Question

Are PMH nurses confident and prepared to provide care in an integrated primary medical care and behavioral health setting? According to Goodrich, Kilbourne, Nord, and Bauer (2013), most acute and chronic medical illnesses can have an impact on mental issues with the ability to exasperate symptoms and compromise treatment results. Therefore, primary integrated care is necessary for the effective delivery of needed behavioral healthcare.

Problem Statement

Availability of appropriate healthcare services is vital to achieve and to maintain quality health. According to Healthy People 2020 (2014), accessibility to healthcare is essential for an individual's physical, social, and psychological needs; inhibition of illnesses, recognition, and relief of illnesses; avoidable loss of life; and life probability. Currid (2012) believes individuals with SMI who are also facing physical health issues are presented with greater possibilities for experiencing psychological distress thereby decreasing quality of life, expanding numbers of consultations and utilization of medical care services, as well as increasing complexity and inadequate compliance to prescribed regimens. In the face of these real healthcare challenges, integrated care in a behavioral setting will reduce some of the barriers. However, moving to an integrated setting would require PMH nurses to focus on patients' mental and medical needs. PMH nurses will need essential knowledge and skills to care for patients safely and confidently.

Purpose of the Project

The purpose of this project was to determine whether a small group of PMH nurses are prepared and have the confidence to provide behavioral and primary care in an

integrated care setting. According to De Hert et al. (2011), mentally ill patients present with physical symptoms and concurrently need primary care healthcare services, so advancing integrated care services can ensure that they receive accurate diagnoses and appropriate treatments for both. PMH nurses need to be able to care for patients holistically.

Theoretical Framework

The theoretical framework of interprofessional collaboration developed by D'Amour, Ferrada-Videla, San Martin Rodriguez, and Beaulieu (2005) can aid in the integration of psychiatric and primary providers. D'Amour et al.'s model conceptualize the method of collaboration in accordance with four dimensions:

Finalization refers to the existence of common goals and their appropriation by the team. The recognition of divergent motives and multiple allegiances, and the diversity of definitions and expectations regarding collaboration; interiorization refers to the awareness by professionals of their interdependency and of the importance of managing interdependency, and it translates into a sense of belonging, mutual knowledge of values and of disciplinary frameworks and trusting relationship; formalization which is analyzed in terms of rules meant to regulate action by strengthening structures; governance, which deals with central leadership, local leadership, expertise, and connectivity. (D'Amour et al., 2005, p. 116)

DNP Essentials

The American Nurse Credentialing Center (ANCC) created eight essentials for DNP graduates (American Association of Colleges of Nursing [AACN], 2006). All of the

essentials were addressed in this project, but essentials II, III, VI, and VII were most closely related to this project. DNP Essential II is *the Organizational and System Leadership for Quality Improvement and System Thinking*. The goal of this project was to increase knowledge of integrated care in a mental health nursing population. The ultimate, long term goal was to improve the quality and safety of care provided to SMI individuals. In this project, an organization was accessed by working through its administration. The entire system of care delivery was assessed over many visits. Communication and leadership skills were utilized extensively while working with the administrator and registered nurses. The third essential is *Clinical Scholarship and Analytical Methods for Evidence-Based for Practice*. This essential was met by performing extensive literature reviews in electronic databases. Searches were performed for evidence related to integrative care environments, mental health and primary care delivery, and nurse competency in integrated healthcare settings. Statistics from this search provided evidence to establish the significance of the project. Evidence-based educational interventions on integrated care and medical illnesses were based on the data provided by the searches in order to improve healthcare in an integrated setting. Further, the results of the doctoral project were analyzed using statistical and visual assessments. The sixth essential is *Interprofessional Collaboration for Improving Patient and Population Health Outcomes*. Although the population of this project was compromised of only registered nurses, they will interact daily with other members of the integrated team health providers and the patients. Registered nurses must be able to effectively collaborate with all members of the integrated team. The warm handoff technique used for referrals to and from primary care was used as part of collaborating and

communicating with other team members. The seventh essential is *Clinical Prevention and Population Health for Improving the Nation's Health*. This project met this essential by assisting a healthcare delivery system better address all the primary and behavioral healthcare in one integrated system. In this project, registered nurses used clinical prevention and population health interventions that focused on health determinants (AACN, 2006).

Needs Assessment

About 4 million registered nurses provide care across the U.S. in every community and in many types of health care settings (American Nurse Association [ANA],2019). Nurses have an important role to play in the integration process and have the ability to provide care at all levels (Longpré & Dubois, 2017). Registered nurses are usually the first provider seen by the patient in a healthcare setting. Generally, registered nurses perform a quick assessment and interview to make sure the medical/mental health primary care providers are cued in on any major problems that need to be addressed during that visit and review current medications with the patient. Nurses also follow up on the visit by checking that medications are understood by the patient and that all questions are answered. The last task of a nurse is often to implement referral processes between providers is done seamlessly and efficiently.

Switching to an integrated care setting can be difficult for nurses and other healthcare providers. To be successful in the integration process, nurses' roles, comprehension, competencies, and practices require renewal and adjustment to current medical and operation demands (Longpré & Dubois, 2017). Nurses have to be able to comprehend the reasons for change, the ordinances for policy change, and competencies

(knowledge, skills, and attitudes) to be a major asset in influencing change (Salmond & Echevarria, 2017).

PMHs in behavioral health settings mainly focus their attention on mental illness and often neglect the present medical illnesses. PMHs will need to change their focus to treating mentally ill patients holistically in an integrated setting. There are several formal tasks associated with reconciling the roles of a behavioral health nurse with the role of an integrated care nurse.

The pre-integration role of behavioral health nurse includes:

- Gathering of health information,
- Medication reconciliation and helping with patient prescription supply,
- Orchestration of monthly shots,
- Healthcare teaching, and
- Individual drug observance training (SAMHSA-HRSA, 2018).

The role of integrated care nurse includes:

- Aiding the physician in administering holistic care,
- Delivering medical and mental healthcare,
- Holistic healthcare teaching,
- Engage in meetings concerning patient,
- Triage in between appointments,
- Alliance median among health providers, and
- Promoting healthcare reform in the mental health population (SAMHSA-HRSA, 2018).

Benefits of integrated nursing care include:

- The individual is cared for as a whole,
- Availability for integrated services,
- Reduced acute care services,
- Reduced hospital admissions,
- Increased patient satisfaction,
- Communication amongst psychiatric and medical group, and
- Improved patient compliance to regimen (Njorge, Hostutler, Schwartz, & Mautone, 2016).

Synthesis of the Evidence

A literature search was performed to gain a more in-depth understanding of the integration of PMH and primary providers. The following databases were used: Google Scholar, EBSCOhost, PubMed, and MEDLINE. The publication years ranged from 2001-2019. Searches were conducted with keywords arranged in various ways. The keywords used included *integrated care*, *collaborative care*, *mental health*, *mental health care*, *psych*, *primary care*, *registered nurses*, *psych mental health nurse*, *behavioral health*, and *warm handoff*.

Druss, Bradford, and Rosenheck (2001) found that only 44% of adults with an SMI who were provided medical care in an integrated setting were screened for high blood pressure and elevated glucose compared to those seen in a non-integrated setting. According to Druss et al. (2001), 45 studies showed that treatment outcomes were significantly better for major depressive individuals who receive integrated care. The individuals reported less depressive symptoms and showed improvement in compliance

with treatment. The findings were in comparison to individuals with major depression receiving non-integrated care. These studies noted that it was common for patients with depression to receive treatment for behavioral health issues in a primary care medical setting and not a behavioral health/mental health setting (Druss et al., 2001).

Integrated Care

Integrated care is holistic care being provided by primary and behavioral health providers in a cost-effective manner with the patient at the center of focus (SAMHSA). Care integration is a major issue that has been reflected as a provision for improving health, social services, and guaranteeing available services (Longpré & Dubois, 2017). Life expectancy can increase with integrated care.

Warm Hand Off

The warm handoff is a specific communication technique used to share information concerning the patient's care in front of the patient. The warm handoff technique can be used to refer the patient to other providers or to other services needed. According to the Agency for Healthcare Research and Quality (AHRQ) (2016), warm handoffs can engage patients and families as team members, allow patients to clarify or correct the information exchanged, build relationships, and provide a safety check.

Behavioral Health

Behavioral health includes behavioral components in chronic illness care, control of bodily manifestations related to distress instead of illnesses, and inclusion of addictions and mental health issues (AHRQ, 2016). Behavioral health can be addressed through prevention and promotion. The term sometimes is used interchangeably as a term for mental health.

Psychiatric Mental Health Nurse

Psychiatric mental health registered nurses work with individuals, families, groups, and communities. Evaluating mental health needs is a primary task of the PMH nurse. The PMH nurse initiates the diagnosing process and care plan executes the nursing process and assesses it for successfulness (American Psychiatric Nurses Association [APNA], 2018).

Summary

The synthesis of evidence highlighted PMH nurses' role in an integrated setting. PMH nurses' roles contribute to preventable health and wellness habits. The benefits of integrated care in the mental health setting was also established. The findings also communicated the need for continued educational interventions for nurses in an integrated setting.

CHAPTER II - METHODS

The purpose of this project was to prepare PMH nurses to work in an integrated setting that includes primary care and behavioral health. In the setting used for this project, an integrated and holistic approach that involves serving the mental and physical health care needs of patients in an outpatient community health center was decided upon. The administrator and the nurses of the setting recognized the need for preparing the nurses for the upcoming major changes. After a needs assessment, a search of the evidence, and conferring with the PMH nurses and administrator, a continuing educational intervention on integrated care, diabetes, and hypertension was created and planned by the project leader for the PMH nurses. The intervention was delivered at an outpatient community health center. A letter of support from the Executive Director to implement an educational project for PMH staff nurses was requested, and approval was received from the Executive Director to conduct the project. After obtaining approval from the Institutional Review Board (IRB) (Protocol number 19-99) at The University of Southern Mississippi and gaining informed consent from the PMH nurses, the educational intervention was presented in February 2019 at an outpatient community health center.

Setting

The Doctor of Nursing Practice (DNP) project, in its entirety, was conducted at a local community health center. This community health center is a United States Health Resources and Service Administration (HRSA) designated Federally Qualified Health Center (FQHC) located in, Mississippi. The FQHC is one of the 14 regional community health centers in Mississippi that provides community health services for adults, children,

youth, families, and the elderly. The FQHC also provides care for those suffering from chemical dependencies and substance use.

Population

Participants (N=4) were psychiatric mental health registered nurses, who were over 18 and worked in an outpatient behavioral setting. The nurses were eligible to participate because they worked at the Federally Qualified Health Center. The FHQC currently provides behavioral healthcare but will provide integrated services to mentally ill patients in the near future.

Data Collection and Procedures

Educational information on integrated care, referral process, and chronic illnesses were provided to the group of PMH nurses who work at the community center. PMH registered nurses were approached and recruited at a scheduled monthly meeting. During the meeting, the study was explained in detail and consent form information was given. Afterward, questions were answered, and nurses who agreed to be in the study signed the consent form and were given a copy. Each participant was assigned a code number, which was placed on the consent form and surveys. The participants spent 30 minutes answering each of the two pre-test surveys.

After completion, the participants placed their consent forms in one pile and their surveys in another. When all the data were collected, the investigator placed both piles in separate envelopes. The consent forms and surveys were placed in a lockbox by the investigator. At a later one-hour meeting, consented participants received information on integrated care, diabetes, high blood pressure, and how to make referrals for medical care. Following the educational intervention, two short post-test surveys (same as pre-

tests) were administered to participants at the same meeting. The surveys were hand scored away from the project site and stored in a locked box. Results from pre-tests and post-tests were analyzed and compared to determine changes in preparedness and confidence.

Design

A pre and post-test design were used to evaluate preparedness and confidence after an evidence-based integrated care educational intervention was presented to PMH registered nurses at an outpatient community center. The educational intervention focused on chronic medical illnesses. The intervention also revolved around understanding integrated care.

Pretest and Posttest Instruments

The preparedness and confidence aspects of the educational intervention were evaluated by assessing the PMH nurses' knowledge through a pre and posttest that measured knowledge of integrated care role, referral process, and chronic illnesses. The pre and posttests for preparedness consisted of eight fill in the blank questions from the evidenced-based educational information. The confidence survey consisted of a five-item visual analog rating scale on the knowledge and feelings about integration and role changes. Also, the confidence level in working in an integrated setting was rated on the scale (See Appendices for instruments).

Ethical and Human Subject Issues

The risks to participants were minimal in this project. The participants were volunteers and not penalized for withdrawal of the project. The participants' confidentiality was protected by placing data collection forms in a sealed enveloped in a

locked box. Access to the collected data was available to the project investigator only. After the project is completed, data collection forms will be kept in a lockbox and shredded six months after all requirements for graduation are met.

Data Analysis

The data from this project included scores from pretests and posttests that were analyzed using visual and simple mathematical processes performed on frequency data. The aim of analysis was to assess score changes before and after the educational intervention on PMH staff nurses' preparedness and confidence. The analysis of the scores will help determine the preparedness for integrated care.

Participants were assigned a code prior to taking the test so that pretest and posttest data could be compared for each participant. The data from this project consisted of scores from pretests and posttests on two measures. The first measure was to assess preparedness to care for chronic medical conditions, the second was to assess confidence in switching nursing care roles from behavioral health to integrated care. The scores were analyzed using visual and simple mathematical processes performed on frequency data to assess the effectiveness of the intervention on PMH staff nurses preparedness and confidence.

Summary

After the completion of the tests and scoring, the tests were stored in a secure area by the doctoral student. The tests and answers were discussed with the nurses at the end of the pretests and posttests. Data were protected and safely stored. The results are discussed in Chapter III.

CHAPTER III - RESULTS

This doctoral project met its goals of engaging with a behavioral health organization to help prepare for the implementation of an integrated care system. This project utilized an educational intervention that resulted in improvements in PMH nurses' preparedness for caring for behavioral healthcare patients with chronic illnesses and referring patients to primary care providers. The project also improved nurse confidence in engaging in an integrated role.

Analysis of Data

The PMH nurses' knowledge regarding integrated care, including referral process, diabetes, and hypertension were measured prior to and after providing educational information. The pretest and posttest for preparedness consisted of eight fill in the blank questions. Each correct answer on the test was worth 12.5 points for a total of 100 points. The participants' pretest scores were either 88 (n=3) or 100 (n=1), and all posttest scores were 100 points. All scores but one (100 pretest, 100 posttest) increased in preparedness 12 points after the evidence-based educational intervention.

The confidence survey consisted of five questions on a visual analog rating scale. The participants' pre-survey scores ranged from 35.5 to 45.5 and post-survey scores ranged from 37 to 46. All participants showed an improvement in confidence after the educational intervention.

Providing educational interventions on chronic illnesses and evidence-based knowledge on integrated care in this behavioral health setting increased PMH nurses' preparedness and confidence in providing care. The scores are presented in Tables 1 and 2.

Table 1

Nursing Preparedness Knowledge Scores

Nurses	Pre-Test Scores	Post-Test Scores	Difference Score
1	88	100	12
2	100	100	0
3	88	100	12
4	88	100	12
Mean	91	100	+9

Table 2

Nursing Confidence Survey Scores

Nurses	Pre-Test Scores	Post-Test Scores	Difference Score
1	35.5	37	1.5
2	37	38.5	1.5
3	39	46	7
4	41.5	45.5	4
Mean	38.25	41.75	+3.5

Summary

The comparison of pre and posttests results demonstrated improvement after the educational intervention. In discussions after the posttests, PMH nurses also verbally reported an increase in their level of confidence and preparedness to provide care in an integrated setting. Providing educational interventions on chronic illnesses and evidence-

based knowledge on integrated care in this behavioral health setting increased PMH nurses' preparedness and confidence in providing care.

CHAPTER IV – DISCUSSION

This doctoral project examined PMH nurses' knowledge of integrated care, referral process, and provided education on common chronic illnesses (diabetes and hypertension) treated in primary care settings. The participants who scored lower on the pretests than posttests indicated attainment of knowledge as a result of the educational intervention. Therefore, the intervention enhanced knowledge about common chronic illnesses, improved preparedness, and increased confidence.

People with SMI are often limited in their ability to keep up with good self-care physically. Socio-economic factors, absence of family help, limited cognitive abilities, and no recognition of the importance of self-care contribute to the decline in physical health (Lawrence & Kisely, 2010). The combination of primary care in behavioral healthcare will increase the benefit and efficacy of delivering care to mentally ill patients.

PMH nurses will need essential knowledge and skills in recognizing, assessing, treating, and referring to those patients with medical related problems in the integrated care system. Salmond and Echevarria (2017) believe nurses have the ability to add to and guide the transformative improvements that are taken place in healthcare. They further state that nurses must be committed members of the interprofessional team to provide cost-effective standard care. According to Salmond and Echevarria (2017), "these shifts will require a new or an enhanced set of knowledge, skills, and attitudes around wellness and population care with a renewed focus on patient-centered care, care coordination, data analytics, and quality improvement" (p. 20).

Limitations

This project was completed in the style of a quality improvement project, in which generalizability to other settings and samples is cautioned. Some limitations noted in this project are that the sample size was small; however, all of the nurses on the unit chose to participate in the project. Even though Licensed Practical Nurses (LPNs) often work in outpatient settings, only registered nurses were included in this project since there were no LPNs employed at the setting. Another limitation is that preparedness was primarily focused on two major chronic illnesses that those with SMI are prone to have, hypertension and diabetes. The preparedness aspect of this project could be expanded to other illnesses and diseases. While the assessment and intervention were done at only one facility, the project investigator visited another facility with integrated care to immerse herself in a system successfully using integrated care.

Future Practice Implications

In this project, an educational intervention was shown to be beneficial in increasing nurses' confidence and preparing nurses to provide care in an integrated setting. Registered nurses can benefit from continuing education and additional training on different illnesses, health promotion, and interventions. Developing and implementing policies for continuing education activities for this organization is needed. A referral tracking form within the electronic medical record can also be beneficial in an integrated setting. Utilizing an electronic medical record in this setting will allow different providers to have access and view care being provided by themselves and others.

Conclusions

The four registered nurses reported that the educational intervention on the chronic illnesses of hypertension and diabetes as well as the role of nurses in integrated care increased their preparedness to provide care and also improved their confidence in an integrated setting. Therefore, this project indicates that evidence-based educational interventions are an effective way to prepare nurses to work in this integrated setting going forward. Due to nurses' roles in all aspects of the care continuum, nurses have an important task in the integration process (Longpré & Dubois., 2017). Nurses will need continuing education to enhance and expand their skills in an integrated setting. To be an asset to the changes needed in the system, nurses' role, understanding, skills, and performances need to be improved and shaped to advance clinical and management requirements (Longpré & Dubois, 2017).

APPENDIX A – IRB Approval Letter

From: irb@usm.edu <irb@usm.edu>
Sent: Thursday, February 21, 2019 1:37 PM
To: Bonnie Harbaugh; Virginia Lewis; Michael Howell; Michaela Donohue
Subject: IRB-19-99 - Initial: Sacco Committee Letter - Exempt

NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident template on Cayuse IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.

PROTOCOL NUMBER: IRB-19-99

PROJECT TITLE: *Psychiatric-Mental Health Nurses' Confidence and Preparedness for Integrated Care*

SCHOOL/PROGRAM: School of LANP, Leadership & Advanced Nursing

RESEARCHER(S): Virginia Lewis, Bonnie Harbaugh

IRB COMMITTEE ACTION: Exempt

CATEGORY: Exempt

Category 2.(ii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).

Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation.

APPROVED STARTING: February 21, 2019

Donald Sacco, Ph.D.

Institutional Review Board Chairperson

APPENDIX C – Pre- and Post-Test

Integrated Care Preparedness- Diabetes and Hypertension Code # _____

Answer each question to the best of your ability. Your answers will help determine educational needs. No one but the investigator will know how you answered.

1. Name 4 signs and/or symptoms of diabetes.

- 1.
- 2.
- 3.
- 4.

2. Which sign is sometimes missed in a new onset diabetic patient?

3. Should insulin be refrigerated?

4. What do AC and PC stand for?

AC:

PC:

5. Name 4 risk factors for high blood pressure (hypertension).

- 1.
- 2.
- 3.
- 4.

6. Name 4 signs and symptoms patients may report that indicates high blood pressure?

- 1.
- 2.
- 3.
- 4.

7. What is the recommended diet for hypertensive patients?

8. What information is important to teach a newly diagnosed hypertensive patient concerning ACE inhibitors medication?

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