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Using Integrated Staff Education to Increase Medication Adherence in a Mentally Ill Population

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Walden University

College of Nursing

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Tiffany Dawn Burke-Lott

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and that any and all revisions required by
the review committee have been made.

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Walden University

2022

Abstract

Using Integrated Staff Education to Increase Medication Adherence in a Mentally Ill

Population

by

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MS, Texas Woman's University, 2005

BS, University Texas at Arlington, 2002

Project Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

January 2022

Abstract

Failure to adhere to medication regimens is a serious problem that affects both the patient and the health care system. Psychiatric patients have the lowest rates of adherence, as low as 24%. The evidence shows that nonadherence to medication is a global challenge in the field of mental illness and is linked with a poor prognosis. Patients who are nonadherent to medications experience exacerbations of their mental illness, which can lead to rehospitalization, poor psychosocial outcomes, relapse of symptoms, reduced effectiveness of subsequent treatment, wastage of limited health care resources, increased substance abuse, poor quality of life, and increased risk of suicide. A gap in practice exists with assessment and promotion of medication adherence in the mentally ill patient by psychiatric staff. The project focused on outpatients diagnosed with a mental illness. A one-hour PowerPoint and discussion session on assessment and promotion of medication adherence in the mentally ill population was conducted. Pre- and posttests using the Behavioral Health Care Competency survey determined success of the project. The knowledge to action framework guided the implementation of the project. Using descriptive statistics, findings indicated that the integrated education module had a neutral impact (pretest mean = 94%; posttest mean = 93%) on increasing staff knowledge, skills, and confidence in the assessment and promotion of medication adherence in mental illness. Staff, therefore, have the knowledge, skill, and confidence to address nonadherence, and by presenting the program, awareness of the necessity to conduct ongoing assessment and monitoring of adherence to medication regimens was increased, promoting social change.

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Section 1: Nature of the Project

Introduction

Mental illness is a global public health challenge with close to 450 million people affected worldwide. It contributes 14% of the overall global burden of diseases and 30% of the nonfatal diseases burden. (Semahegn et al., 2020). The burden of mental illness in the United States is among the highest of all diseases. Recent figures suggest that within the last year, approximately one in four adults and one in five children in the United States had a mental health diagnosis (U.S. Department of Health and Human Services, 2010). The presence of psychiatric comorbidity in these patients is associated with decreased quality-of-life, poorer prognosis, chronification of disease, poorer response to treatment, and increased medical cost (Maizels et al., 2006). Nonadherence to psychotropic medication worsens the overall burden and is a major impediment in the treatment of mental illness yet crucial for symptom management. Nonadherence to medications leads to complications according to Li et al. (2019) as patients noncompliant to prescriptions are more vulnerable to negative outcomes, such as higher risk of relapse, greater risk of readmission, and higher rate of positive and negative psychotic symptoms. In Li et al.'s study, medication adherence was positively associated with disease stability implying that medication adherence might be an alternative measure for monitoring management effects. Furthermore, a patient's nonadherence contributes to negative patient outcomes, negative financial impact on society, and wastage of already limited health system resources. Improving medication adherence in mental illness will promote

positive patient outcomes, improve quality of life, decrease a negative burden on society, and decrease a negative burden on the health care system.

Problem Statement

Medication adherence is defined by the World Health Organization (WHO, 2003) as the degree to which a person's behavior corresponds with the agreed recommendations for medication administration from a health care provider. Nonadherence to medication is a serious problem that affects the patient and the health care system. A recent report by the WHO revealed that 50% of patients with chronic disease do not take their medication as prescribed. According to Hamrin et al., (2017), among psychiatric patients, those with bipolar and schizophrenic spectrum disorders have the lowest rates of adherence, with medication adherence rates as low as 24% reported for individuals with schizophrenia. According to Semahegn et al. (2020), psychiatric disorders have worsened because of ineffective treatments, lack of coverage, and poor adherence. The cost was estimated to be approximately \$2.5 trillion in 2010 and is expected to rise to \$6.0 trillion by 2030. Furthermore, patients who do not adhere to prescribed medications may experience exacerbations of their mental illness, which lead to rehospitalization, poor psychosocial outcomes, relapse of symptoms, reduced effectiveness of subsequent treatment, wastage of limited health care resources, increased substance abuse, poor quality of life, and increased suicide. It is estimated that nonadherence to therapy for mental illness costs up to \$20,000 per patient annually. Nonadherence to treatment is associated with poor outcomes, including psychiatric hospitalization, relapse, negative social outcomes (e.g., arrest, job loss), and increased risk of attempted suicide (Forma et al., 2020). In the

United States, suboptimal adherence has been associated with 125,000 deaths and 10% of hospitalizations with an economic impact showing an increase in total healthcare cost (> 80%), pharmacy costs (70%), inpatient and outpatient costs (50%), emergency department visit and medication costs (< 30%), and hospitalization costs (< 20%) since 2018. Nearly 70% of all medication-related hospital admissions are due to medication nonadherence alone (Mohiuddin, 2019).

Purpose Statement

The purpose of this project was to develop and evaluate the effectiveness of an integrated staff education program at a rural integrated mental health outpatient clinic. The program provided staff with the knowledge, skills, and confidence necessary to interact with mentally ill patients to assess and promote medication adherence. One research study documented that concentrated psychiatric education can improve perceived competency of nurses and allied health professionals to care for mentally ill patients (Winokur et al., 2017). According to Bredimus (2019), implementing a mental health training program in one facility showed a statistically significant improvement ($p < .001$) in overall nurse confidence in caring for mental health patients. This project will assist staff to undertake an integrated approach in the assessment and promotion of medication adherence in mental illness. This project will address the gap in the staff's knowledge, skills, and confidence to assess and promote medication adherence among those presenting with a mental illness.

Nature of the Doctoral Project

The staff education program was guided by the Walden University staff education manual (2019). The program was presented to all staff at a monthly staff meeting. There are 22 staff employed at the facility who engage with patients, including two nurse practitioners, one psychologist, 15 licensed therapists and counselors, and four nursing staff.

The focus of the education was on the importance of medication adherence. Medications commonly prescribed in mental illness, common reasons for nonadherence, strategies to promote adherence, and implementing tools for assessment of medication adherence were emphasized. Presentation was conducted by conference video using social distancing methods as required by Walden University. The presentation was approximately 1 hour and was based on the following objectives:

1. Describe medication adherence and its importance to positive patient outcomes.
2. Describe the commonly prescribed medications in mental health.
3. Describe reasons for patient nonadherence to medication.
4. Explain strategies for counseling patients on medication adherence.
5. Assess patient medication adherence.

I obtained informed consent before collecting data from the staff. The Behavioral Health Care Competency (BHCC, Appendix) survey was administered to staff to assess their knowledge, skills, and confidence level of assessing and promoting medication

adherence before and after the educational program. I analyzed data using descriptive statistics and presented in tables and charts as appropriate to the findings.

Significance

As former Surgeon General C. Everett Koop said, “Drugs don’t work if patients don’t take them” (Million Hearts, para.1). Reasons for medication nonadherence include complicated dosing regimens, poor communication between the provider and the patient, and the cost of medication, among other reasons. A gap in nursing practice existed with assessment and promotion of medication adherence in the mentally ill patient. There was overall alignment of this project as there is much evidence that supported the need for change. Antipsychotic medications play an important role in mental illness treatment and symptom control. The greatest improvements in adherence were found for combinations of educational, behavioral, and affective interventions (Dolder et al., 2003). Effective management of mental illness requires continuous long-term treatment to keep symptoms under control and to prevent relapse. Despite the critical importance of medication, nonadherence to prescribed drug treatments has been recognized as a problem worldwide and may be the most challenging aspect of treating patients with mental illness (WHO, 2003). Data from the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) study showed that 74% of patients had discontinued medication within 18 months due to insufficient efficacy, intolerable side effects, or for other reasons (Lieberman, 2005).

Summary

The purpose of this project was to develop and evaluate the effectiveness of an integrated staff education program at a rural integrated mental health outpatient clinic.

Failure to adhere to medication is a serious problem that affects not only the patient but also the health care system. A gap in nursing knowledge existed, and there was much evidence that supported the need for change. This project addressed that gap by increasing staff knowledge, skills, and confidence necessary to assess and promote medication adherence in the mentally ill population. The next section provides a discussion of the concepts, models, and theories used in the development of the intervention to address medication adherence in mental illness.

Section 2: Background and Context

Introduction

This project addressed the gap in assessment of medication adherence by educating staff on the importance of medication adherence and the assessment and promotion of medication adherence in the targeted population.

The research evidence has highlighted that nonadherence to medication is a global challenge in the field of mental illness and is linked to a poor patient prognosis of outcomes. According to Barry and Ward (2017), nurses in practice report limited education and clinical experience in managing a patient who is mentally ill. Nurses have also reported limited education in mental health during nursing school, with shortfalls in comprehensive and uniform curricula related to mental health content. Practicing nurses described a lack of skills and discomfort in dealing with the acute mental health crisis population due to a myriad of factors including the inability to identify mental health patients presenting with general medical complaints, inexperience in dealing with patients in a mental health crisis, and limited resources, among others (Bredimus, 2019). It is important for health professionals to have some understanding of the underlying theoretical constructs of adherence to effectively enhance medication and treatment adherence and engage with patients (Gearing & Mian, 2005). When considering the reasons for nonadherence, many patients outline concerns about their medication, feel that the prescribing decision making is not inclusive, and express feeling disempowered with providers.

Collaborative and trusting relationships between professionals and patients increase the possibility of shared decision making (SDM), an approach in which clinicians and patients share the best available evidence when faced with the task of making decisions, patients are supported to consider options to achieve informed preferences, and decisions align with what matters most to the patient (Elwyn et al., 2012). SDM enhances patient satisfaction and could improve medication and treatment adherence in mental illness. The complexity of decision making with mental illness commends a model of person-centered care such as SDM to improve patient experience and adherence (Bradley & Green, 2018).

Clinicians in psychiatric settings need to elicit information on adherence to the patient's medication and treatment to prevent poor patient outcomes and reduce the global burden on the healthcare system (Semahegn et al., 2020). As noted by Slade (2017), clinical justification for SDM is that patients who are active participants in managing their care have better outcomes. Increased involvement will lead to better engagement, higher-quality decision making, and increased treatment adherence.

Concepts, Models, and Theories

Conceptual frameworks are recommended as a way of preparing for the multiple, dynamic, and interactive factors that influence the uptake of evidence in practice (Field, et al., 2014). The knowledge to action framework (KTA) is a conceptual framework intended to help those concerned with knowledge translation deliver sustainable, evidence-based interventions. Knowledge translation is defined as a dynamic and iterative process that includes synthesis, dissemination, exchange, and ethically sound

application of knowledge to improve health, provide more effective health services and products, and strengthen the health care system (Crockett, 2017).

According to Crockett (2017), the KTA framework is composed of two distinct, but related components: (a) knowledge creation, and (b) the action cycle. The first component of the model is the knowledge creation *funnel*, which represents the production and synthesis of knowledge. As knowledge moves through the funnel, it is refined and summarized to be more useful for end-users. This inner component of the model is broken down into three phases: (a) knowledge inquiry, (b) knowledge synthesis, and (c) the creation of knowledge tools and products. The action cycle includes a range of activities needed for knowledge implementation. The action cycle is iterative and includes the deliberate application of knowledge to cause change in behavior and/or attitudes. The KTA framework guided implementation of the evidence-based practice (EBP) intervention to increase staff confidence, knowledge, and skills in the promotion of medication adherence in mental illness. The KTA framework was chosen because the model integrates knowledge creation and action and is grounded in planned action theory. The KTA framework focuses on local context and practice when adapting and implementing EBP interventions. KTA assumes engagement of knowledge users in producing and adapting knowledge and selecting and tailoring interventions to local context while focusing on two-way interaction and communication (Graham & Tetroe, 2010).

Relevance to Nursing Practice

According to the WHO (2003), “increasing the effectiveness of adherence interventions may have a far greater impact on the health of the population than any improvement in specific medical treatments” (p.21). Nurses are in a prime position to assess and promote medication adherence in mental illness. Increasing nursing knowledge on medication adherence is important for allowing an increase in positive patient outcomes. Increased knowledge allows for better skills and comfort in dealing with the mental health population including the ability to identify and assess mental health patients presenting with decreased medication adherence, increased awareness to manage medication adherence, and increased resources for promoting medication adherence.

Local Background and Context

The intended setting for the project was an integrated outpatient mental health clinic in rural Oklahoma. The integrated practice treats approximately 1,500 mental health patients yearly. Common diagnoses include schizophrenia, posttraumatic stress disorder, bipolar disease, depression, major depressive disorder, generalized anxiety disorder, and attention deficit hyperactivity disorder. The integrated practice provides the community with mental health counseling, medication, and treatment interventions. It was feasible to implement and accomplish this project in this setting as a large portion of patients within the integrated care clinic are nonadherent with medication and treatment interventions. Although there is no formal tracking system in place, it is estimated that 50% of patients who are treated at the clinic are nonadherent to medication. Common

reasons for patient nonadherence in this population include severity of illness, cognitive impairment, cost, adverse side effects, forgetfulness, lack of symptoms, mistrust, lack of insight, and depression. This cohort of patients utilize an integrated staff for their treatment and communicate with staff daily. Staff discuss the patient's medication and treatment adherence to determine progress and address any acute mental health exacerbations and needs as they arise. The project was feasible from the leadership perspective as they endorsed and agreed with the project being implemented at the site.

Role of the Doctor of Nursing Practice Student

As the DNP student, I was the project leader in development and implementation of the staff educational program. I was responsible for obtaining permission and consent prior to conducting the project. This was a minimal risk project. There was no anticipated risk associated with the implementation of this project and no patient intervention or patient related data was collected as a part of the project. However, highlighting the importance of staff knowledge, skills, and confidence in the assessment and promotion of medication and treatment adherence in mental illness and their potential for SDM could possibly affect participation due to results being shared with administration. All data collected from participants in the educational program was kept anonymous and confidential and presented in aggregate. Approval for this project was provided by the project site and Walden University's Institutional Review Board. All information collected for the project was collected anonymously. Collection and storage of data followed university guidelines. I also followed Walden University's mandate on social distancing for DNP projects.

Summary

The research evidence has highlighted that nonadherence to medication is a global challenge in the field of mental illness and is linked with a poor prognosis and poor patient outcomes. Nurses are in a prime position to assess and promote medication adherence in mental illness. The KTA framework guided the EBP intervention to increase nursing knowledge, confidence, and skills in the assessment and promotion of medication adherence in mental illness. In Section 3 I discuss the collection and analysis of evidence and the practice focused question that guided the project.

Section 3: Collection and Analysis of Evidence

Introduction

The staff education program was guided by the Walden University (2019) staff education manual and the KAF (Crockett, 2017). The program was presented to all staff at a monthly staff meeting. There are 22 staff employed at the facility who engage with patients including two nurse practitioners, one psychologist, 15 licensed therapists and counselors, and four nursing staff. The focus of the education was on the importance of medication adherence, medications commonly prescribed in mental illness, common reasons for nonadherence, strategies to promote adherence, and implementing tools for assessment of medication and treatment adherence.

Practice-Focused Question

The question guiding this project was:

PFQ: In outpatients diagnosed with a mental illness does an integrated staff education program result in increased staff knowledge, skills, and confidence in the assessment and promotion of medication adherence as evidenced by a staff pre- and postsurvey?

Sources of Evidence

A literature search was conducted to identify the best available evidence to support the development of an educational program on medication adherence in the mentally ill for staff at an integrated mental health clinic in rural Oklahoma. Sources for

this search included Medline/PubMed, CINAHL and the Cochrane Library. Key words for searching included *medication adherence*, *strategies*, and *mentally ill patients*.

The expert consensus guidelines for adherence problems in patients with serious and persistent mental illness were integrated into the program where relevant. In this way, the program, and the recommended strategies for increasing adherence were evidence-based (see Velligan, et al., 2009). As Camp et al. (2014) noted, the use of guidelines increases adherence; using a guideline to confirm understanding of discharge instructions, home care plans, and follow up care promotes compliance to home regimens

According to expert consensus guidelines for adherence problems in patients with serious mental illness offered by Velligan, et al. (2006),

the following psychosocial/programmatic and pharmacologic interventions were rated first line for specific problems that can lead to nonadherence: ongoing symptom/ side-effect monitoring for persistent symptoms or side effects; services targeting logistic problems; medication monitoring/environmental supports (e.g., Cognitive Adaptation Training, assertive community treatment) for lack of routines or cognitive deficits; and adjusting the dose or switching to a different oral antipsychotic for persistent side effects. (para. 1)

An additional source of evidence was the pre- and postintervention BHCC surveys of staff knowledge, skills, and confidence in assessment and promotion of the importance to medication adherence. The 23-item survey measured perceptions of individual competency to care for mentally ill patients. This instrument assessed the following four competencies related to mentally ill patients: ability to assess, ability to

intervene, ability to recommend psychotropics, and ability to access adequate resources. The BHCC uses five-point Likert-type scale with responses ranging from *strongly disagree* (1) to *strongly agree* (5). It has adequate reported content and construct validity. Prior administration of the BHCC supported adequate internal consistency of the four subscales and the whole scale: assessment (9 items, $\alpha = 0.91$), practice/intervention competency (8 items, $\alpha = 0.90$), recommendation of psychotropics (2 items, $\alpha = 0.78$), and resource adequacy (4 items, $\alpha = 0.78$); the total BHCC internal consistency coefficient was 0.92.24. The higher the BHCC score, the higher is a respondent's perceived mental illness care competency (Winokur et al., 2017). The BHCC is used primarily to determine how competent a staff member feels in their current job about caring for patients with behavioral health or psychiatric conditions, including substance abuse (Rutledge et al., 2012).

Analysis and Synthesis

The success of the staff education program was determined through a comparison of a pretest before the delivery of the staff education module and a posttest after the staff education using the BHCC survey of staff knowledge, skills, and confidence in assessment and promotion of the importance of medication adherence. The 23-item BHCC survey measures perceptions of individual competency to care for mentally ill patients. Descriptive statistics provide summaries about the sample and the measures. I used descriptive statistics to determine the difference between the two means.

My DNP committee approved program, content, materials, and rating tools. This ensured the validity of the content in the program to provide nurses with the knowledge,

skills, and confidence in assessment and promotion in the importance in medication adherence.

Summary

Collection and analysis of evidence through the literature review established a strong EBP approach for the targeted education program to provide nurses with the knowledge, skills, and confidence in assessment and promotion of the importance in medication adherence in the mentally ill population. The effectiveness of the staff education program was determined through descriptive analysis of a pre- and post-BHCC survey. In Section 4 I discuss the findings, implications, recommendations, contributions, strengths, and limitations of the project.

Section 4: Findings and Recommendations

Introduction

My purpose in carrying out this project was to increase staff knowledge, skills, and confidence in the assessment and promotion of medication adherence in a mental health population, which has the potential to increase SDM. The project need became evident as the mental health population was increasingly noncompliant with treatment recommendations and medications and with anecdotal evidence showing that about 50% of patients at the project site were nonadherent to their medication regimen. It was clear that assessment and promotion of medication adherence by the staff in mental illness was necessary for change to occur. Use of an integrated staff education program in the assessment and promotion of medication adherence with a BHCC survey of staff that would result in increased knowledge, skills, and confidence was the goal of the project. My role was team leader in the development of the integrated staff education program to increase staff knowledge, skills, and confidence in the assessment and promotion of medication adherence in mental illness.

Findings and Implications

Approval from Walden University Institutional Review Board (approval number 05-14-21-1029006) was granted prior to this capstone project implementation. I also obtained site approval. After receiving approvals, I placed the 23-item BHCC survey into Qualtrics™. Qualtrics™ is a browser friendly, anonymous survey software. I sent informed consent with the survey link to participants and upon participant submission,

the results were sent to Qualtrics™. I exported Qualtrics™ data from Qualtrics™ into SPSS® for analysis. The BHCC survey can be viewed in the Appendix.

Descriptive Statistics

Demographics of the 22 participants included two nurse practitioners, one psychologist, 15 therapist, and four nursing staff. Two staff were male and twenty were female. All staff were employed full time.

Findings from the BHCC pretest (Table 1) indicated staff had varying degrees of ability to assess, ability to intervene, ability to recommend psychotropics, and ability to access adequate resources. The pretest ability to assess ($n = 13$) averaged 4.0513 ($s = .47923$). The pretest ability to intervene ($n = 13$) averaged 4.1635 ($s = .39982$). The pretest ability to recommend psychotropics ($n = 13$) averaged 3.1154 ($s = 1.08309$). The pretest ability to access adequate resources ($n = 13$) averaged 4.2308 ($s = .59914$).

Table 1

Behavioral Health Care Competency Pretest

Variable	<i>N</i>	Minimum	Maximum	Mean	Std. deviation
Assess	13	3.33	4.89	4.0513	.47923
Intervene	13	3.50	4.75	4.1635	.39982
Recommend	13	1.00	5.00	3.1154	1.08309
Access	13	3.25	5.00	4.2308	.59914

Findings from the BHCC posttest (Table 2) indicated a modest change after the education intervention of staff ability to assess, ability to intervene, ability to recommend psychotropics, and ability to access adequate resources. The posttest ability to assess ($n = 9$) averaged 4.0864 ($s = .39976$). The posttest ability to intervene ($n = 9$) averaged 4.2639 ($s = .42133$). The posttest ability to recommend psychotropics ($n = 9$) averaged 3.3889 ($s = .42133$).

= 1.13957). The post-test ability to access adequate resources ($n = 9$) averaged 3.8056 ($s = .67056$).

Table 2

Behavioral Health Care Competency Posttest

Variable	<i>N</i>	Minimum	Maximum	Mean	Std. deviation
Assess	9	3.44	4.56	4.0864	.39976
Intervene	9	3.75	4.75	4.2639	.42133
Recommend	9	1.00	5.00	3.3889	1.13957
Access	9	2.75	5.00	3.8056	.67056

Findings from the BHCC (Table 3) pretest and posttest comparison indicated a neutral change after the staff education intervention in staff ability to assess, ability to intervene, ability to recommend psychotropics, and ability to access adequate resources. Highest scores were in staff ability to assess ($N = 22$) pretest 4.0513 and posttest 4.086 and ability to intervene ($N = 22$) pretest 4.1635 and posttest 4.2639. Lowest scores were in staff ability to recommend psychotropics ($N = 22$) pretest 3.1154 and posttest 3.3889 and access adequate resources ($N = 22$) pretest 4.2308 and posttest 3.8056.

Table 3

Behavioral Health Care Competency Pretest and Posttest Comparison

Variable	Pretest mean	Posttest mean
Assess	4.0513	4.086
Intervene	4.1635	4.2639
Recommend	3.1154	3.3889
Access	4.2308	3.8056

Discussion

There was a total of 22 responses to the BHCC survey. There were 13 participants in the BHCC pretest. On average, staff agreed in their ability to assess, ability to intervene, and access to adequate resources, but were neutral in their ability to recommend psychotropics, with some staff who strongly disagreed about their ability to recommend psychotropics.

There were nine participants in the posttest. On average, staff showed an increase in their ability to assess, ability to intervene, and ability to recommend psychotropics postintervention. The lowest score was on their ability to recommend psychotropics, and some strongly disagreed about their ability. There was a slight decrease in their ability to access adequate resources, which could be due to attrition of participant responses posttest.

Findings from the BHCC pretest and posttest indicated a neutral change after the staff education intervention. The staff scored highest in their ability to assess and ability to intervene and scored lowest in their ability to recommend psychotropics and access adequate resources

Recommendations

Recommendations based on the results of this capstone project are to continue to promote the use of integrated staff education for increasing the knowledge, skills, and confidence of staff in the assessment and promotion of medication adherence in mental illness. The outcomes obtained from the project can be used to plan further educating nursing staff to improve medication and treatment adherence in mental illness. With the

results showing lowest staff scores in the recommendation of psychotropics, a medication education module could be a focus in further education.

Scholarship and research are the hallmarks of doctoral education. For practicing nurses, the ability to access and understand EBP is an ethical responsibility. Evidence and ethics can be used to guide and support practice priorities, responsibilities, and decisions on resource use and treatment to enable optimal outcomes for patients and organizations (Opsahl et al., 2020).

Strengths and Limitations of the Project

This capstone project had several limitations. Due to the sensitive nature of the BHCC survey, participant results could be biased due to not wanting to portray feelings of inadequacies in their current profession. There is no generalizability of the results to other settings because the capstone project was limited to a single outpatient clinic in Oklahoma. The small sample size of participants also limits the generalization of the capstone project. The project having been conducted in one place limits observation because of the lack of data from other places with which to compare it. The analysis of this project's outcomes was cross-sectional and did not account for the correlation that exists between therapeutic relationships and other variables effecting medication adherence in mental illness. This means that the results should be viewed with caution.

The strengths of the project, however, indicate that staff do feel confident about their knowledge, skills, and confidence in the assessment and promotion of medication adherence in mental illness. Overall, staff do not feel confident in their ability to recommend psychotropic medications, which opens opportunity to educate staff further.

With this, there is the potential to increase medication adherence in mental illness through the integrated staff education module.

Section 5: Dissemination Plan

The dissemination of evidence took place after the completion of the capstone project. This was achieved by gathering evidence from the project and then meeting with stakeholders. The evidence that was obtained during the project was delivered to the stakeholders. The project was completed successfully in the allotted period. The education project was proven to be of help in increasing the knowledge, skills, and confidence of nurses in the assessment and promotion of medication adherence in mental illness. If medication adherence increases among patients with mental illness, then the program will be considered effective. Adherence in this population will be monitored. The developed module would be beneficial for orientation of newly hired staff in this setting. This project promotes social justice by increasing staff ability to assess and promote medication adherence in mental illness for positive outcomes among all patients.

The project will be shared with local nurse employers for proposed implementation in other settings. After successful implementation of the project in local settings and evidence of success, the project will be shared at the state level for further evaluation. It is possible to present the results in podium or poster format to local or national conferences related to care of the mental health population.

Analysis of Self

The reason for this capstone project was the high rates of medication nonadherence among those presenting with mental illness at the study site. I felt compelled to make a positive change benefiting not only those with mental illness but nursing and society as well. I pondered strategies for implementation in an effort to

improve adherence to medications in mental illness. I determined that educating to improve nursing knowledge, skills, and confidence in the assessment and promotion of medication adherence could improve medication adherence in mental illness. One of the greatest lessons I learned in carrying out this capstone project was that effective communication is essential for any project success. Communication breakdown impacted the project implementation timeline. Dates for implementation changed due to organizational meetings and date changes among stakeholders. The changes were not clearly communicated to me, and this resulted in a breakdown of congruence among those participating in the delayed capstone project. However, despite these setbacks, the project was carried out successfully.

Summary

The reason for conducting the capstone project was to increase nursing knowledge, skills, and confidence in the assessment and promotion of medication adherence in mental illness. Increasing medication adherence among those with mental illness would have a positive impact on patient outcomes and society. Although, survey results were high in the pretest and dipped a little in the posttest, staff had the knowledge and understanding of the importance of adherence. This project potentially increased the skill to do so, and adherence to medication within this population will be monitored ongoing.

The project was conducted in an integrated outpatient clinic in Oklahoma that deals with patients experiencing mental illness. The project was completed successfully, and the implementation of the education module was found to be neutral in increasing

nursing knowledge, skills, and confidence in assessment and promotion of medication adherence in mental illness. However, the education module might increase the awareness of the importance of medication adherence in mental illness. This was a measure for success, and based on the results obtained in the project, I conclude that the education module intervention had a positive impact on staff by increasing awareness of medication adherence and thereby possibly improving the assessment of medication adherence in mental illness.

References

- Barry, S., & Ward, L. (2017). Undergraduate nursing students' understandings of mental health: a review of the literature. *Issues Mental Health Nursing, 38*, 160-175.
<https://doi.org/10.1080/01612840.2016.1251515>
- Bradley, E., & Green, D. (2018). Involved, inputting or informing: “shared” decision making in adult mental health care. *Health Expectations: An International Journal of Public Participation in Health Care & Health Policy, 21*(1), 192–200.
<https://doi.org/10.1111/hex.12601>
- Bredimus, B. (2019). Mental health preparedness: A nurse leader's role. *Nurse Leader, 18*(1). [https://www.nurseleader.com/article/S1541-4612\(19\)30356-8/fulltext](https://www.nurseleader.com/article/S1541-4612(19)30356-8/fulltext)
- Camp, P. G., Norton, S. P, Goldman, R. D., Shajari, S., Smith, M. A., Heathcote, S., & Carleton, B. (2014). Emergency department visits for children with acute asthma: Discharge instructions, parental plans, and follow-through of care-a prospective study. *Canadian Journal of Emergency Medicine, 16*, 467-476.
<https://doi.org/10.2310/8000.2013.131229>
- Crockett, L. (2017). *The knowledge-to-action framework*.
https://www.mcgill.ca/mqhrq/files/mqhrq/graham_2006_lost_in_knowledge_trans_lation.pdf
- Dolder, C. R., Lacro, J. P., Leckband, S., & Jeste, D. V. (2003). Interventions to improve antipsychotic medication adherence: review of recent literature. In *Database of Abstracts of Reviews of Effects (DARE): Quality-assessed Reviews [Internet]*.

Centre for Reviews and Dissemination.

<https://www.ncbi.nlm.nih.gov/books/NBK69729/>

Elwyn, G., Frosch, D., Thomson, R., Joseph-Williams, N., Lloyd, A., Kinnersley, P., Cording, E., Tomson, D., Dodd, C., Rollnick, S., Edwards, A., & Barry, M. (2012). Shared decision making: A model for clinical practice. *Journal of General Internal Medicine*, 27(10), p.1361–1367. <https://doi.org/10.1007/s11606-012-2077-6>

Field, B., Booth, A., Ilott, I., & Garrett, K. (2014). Using the knowledge to action framework in practice: A citation analysis and systematic review. *Implementation Science*, 9(172). <https://doi.org/10.1186/s13012-014-0172-2>

Forma, F., Green, T., Kim, S., & Teigland, C. (2020). Antipsychotic medication adherence and healthcare services utilization in two cohorts of patients with serious mental illness. *ClinicoEconomics and Outcomes Research*, 12, 123–132. <https://doi.org/10.2147/CEOR.S231000>

Gearing, R. E., & Mian, I. A. (2005). An approach to maximizing treatment adherence of children and adolescents with psychotic disorders and major mood disorders. *The Canadian child and adolescent psychiatry review*, 14(4), 106–113. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2553227/>

Graham, I. D., Logan, J., Harrison, M. B., Straus, S. E., Tetroe, J., Caswell, W., & Robinson, N. (2006). Lost in knowledge translation: time for a map? *The Journal of Continuing Education in the Health Professions*, 26(1), 13–24. <https://doi.org/10.1002/chp.47>

Graham, I. D., & Tetroe, J. M. (2010). *The knowledge to action framework. Models and frameworks for implementing evidence-based practice: Linking evidence to action*, 207, 222.

<https://books.google.com/books?hl=en&lr=&id=EpDbQSI1390C&oi=fnd&pg=PA207&dq=knowledge+to+action+framework+graham&ots=eecIDVPzNJ&sig=VZxIe4O80HF19iCXn6AcVGCTHxg#v=onepage&q=knowledge%20to%20action%20framework%20graham&f=false>

Hamrin, V., Sinclair, V., & Gardner, V. (2017). Theoretical approaches to enhancing motivation for adherence to antidepressant medications. *Archives of Psychiatric Nursing*, 31(2), 223–230. <https://doi.org/10.1016/j.apnu.2016.09.004>

Jeffery, A. D., Longo, M. A., & Nienaber, A. (2016). *Staff educators guide to professional Development*. Sigma Theta Tau International.

Li, Y., Wen, H., Xu, J., Wang, D., Liu, Y., & Yang, M. (2020). The association between medication adherence and disease stability in patients with severe mental disorders and area variation: Community-based prospective study in Southwest China. *Community Mental Health Journal*, 56(2), p. 322–327.

<https://doi.org/10.1007/s10597-019-00460-2>

Lieberman, J. A., Stroup, T. S., McEvoy, J. P., Swartz, M. S., Rosenheck, R. A., Perkins, D. O., Keefe, R. S. E., Davis, S. M., Davis, C. E., Lebowitz, B. D., Severe, J., & Hsiao, J. K. (2005). Effectiveness of antipsychotic drugs in patients with chronic schizophrenia. *The New England Journal of Medicine*, 353(12), 1209–1223.

<https://doi.org/10.1056/NEJMoa051688>

- Maizels, M., Smitherman, T. A., & Penzien, D. B. (2006). A review of screening tools for psychiatric comorbidity in headache patients. *Headache: The Journal of Head and Face Pain*, 46, S98-S109. <https://doi.org/10.1111/j.1526-4610.2006.00561.x>
- Million Hearts. (2020). *Medication adherence*. <https://millionhearts.hhs.gov/tools-protocols/medication-adherence.html>
- Mohiuddin AK (2019) Risks and reasons Associated with medication non-adherence. *Journal of Clinical Pharmacology*, 1(1), p. 50-53. <https://www.innovationinfo.org/articles/JCP/JCP-105.pdf>
- Opsahl, A., Nelson, T., Madeira, J., & Wonder, A. H. (2020). Evidence-based, ethical decision-making: Using simulation to teach the application of evidence and ethics in practice. *Worldviews on Evidence-Based Nursing*, 17(6), P.412-417. <https://doi.org/10.1111/wvn.12465>
- Rutledge, D. N., Wickman, M., Drake, D., Winokur, E., & Loucks, J. (2012). Instrument validation: Hospital nurse perceptions of their behavioral health care competency. *Journal of advanced nursing*, 68(12), 2756–2765. <https://doi.org/10.1111/j.1365-2648.2012.06025.x>
- Semahegn, A., Torpey, K., Manu, A., Assefa, N., Tesfaye, G., & Ankomah, A. (2020). Psychotropic medication non-adherence and associated factors among adult patients with major psychiatric disorders: A systematic review and meta-analysis. *Systematic Reviews*, 9(1), 17. <https://doi.org/10.1186/s13643-018-0676-3>
- Slade, M. (2017). Implementing shared decision making in routine mental health care. *World Psychiatry: Official Journal of the World Psychiatric Association*, 16(2), 146–153. <https://doi.org/10.1002/wps.20412>

U.S. Department of Health and Human Services. (2010). *Healthy people 2020*.

https://www.healthypeople.gov/sites/default/files/HP2020_brochure_with_LHI_508_FNL.pdf

Velligan, D. I., Weiden, P. J., Sajatovic, M., Scott, J., Carpenter, D., Ross, R., Docherty, J. P. (2009) The expert consensus guideline series: Adherence problems in patients with serious and persistent mental illness. *Journal of Clinical Psychiatry*, 70(Suppl 4),6-46. <https://doi.org/10.4088/JCP.7090su1cj> .

Walden University. (2019). *Manual for staff education doctor of nursing practice (DNP) scholarly project*.

https://drive.google.com/file/d/0B1_8mknkC0j1dU0xR19EbUtoanc/view

Winokur, E. J., Loucks, J., & Rutledge, D. N. (2017). Effect of concentrated psychiatric education on perceived competence to care for behavioral health patients: *Journal of Emergency Nursing*, 43(5), 419-425. <https://doi.org/10.1016/j.jen.2017.02.002>

World Health Organization. (2003). *Adherence to long-term therapies. Evidence for action*. World Health Organization.

https://www.who.int/chp/knowledge/publications/adherence_report/en/

Appendix: Behavioral Health Care Competency Survey

I can assess patients for potential psychiatric problems.

I identify signs and symptoms of common psychiatric conditions (e.g. depression, schizophrenia, bipolar disorder)

I can identify common neuroleptic, tranquilizers, and anti-depressant medications used with psychiatric patients

I am able to assess patients for risk of suicide (suicidality)

I recognize behaviors that indicate a patient may have alcohol or drug abuse problems

I can recognize signs and symptoms of alcohol withdrawal

I can recognize signs and symptoms of drug withdrawal

I can distinguish between dementia and delirium

I can recognize the warning signs in patients whose behavior may escalate to aggression or dangerous behaviors

Practice/intervention competency[†]

I can initiate appropriate nursing interventions for common psychiatric issues such as depression, bipolar disorder, psychosis

I can effectively interact with patients who have mental health problems

I am able to maintain a safe environment for patients on my unit who have a psychiatric condition

I can effectively manage conflicts caused by patients who have mental problems

I can effectively intervene with a patient having hallucinations

I am able to use de-escalation techniques and crisis communication to avert aggressive behaviors

I plan for more time to take care of patients with psychiatric issues compared with my other patients

I am able to maintain a therapeutic relationship with most patients on my unit who have psychiatric issues

Recommendation of psychotropics[‡]

I am confident that I can recommend use of psychotropic drugs to physicians for appropriate patients

I recommend psychotropic drugs to physicians for psychiatric patients

Resource adequacy[§]

I know when to ask for outside help (e.g. physician, psychiatric nurse, other) for a patient with psychiatric issues or dangerous behaviors

I call for outside resources (e.g. physician, psychiatric nurse, other) when I recognize a patient's behaviors are escalating beyond my capabilities

I am confident that help is available to me when I need assistance with patients who have co-morbid behavioral or psychiatric issues

Hospital resources are available to me when I need assistance with behavioral health, or psychiatric issues, or substance abuse issues

Figure A1:

Knowledge to Action Framework

