

2018

# Educating psychiatric nurses to improve medication adherence among schizophrenic patients

Chandrika McQueen  
*Walden University*

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# Walden University

College of Health Sciences

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Chandrika McQueen

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Chief Academic Officer

Eric Riedel, Ph.D.

Walden University

2018

Abstract

Educating Psychiatric Nurses to Improve Medication Adherence Among Schizophrenic

Patients

by

Chandrika McQueen

MS, Walden University, 2009

BSN, Auburn University, 2004

Project Submitted in Fulfillment  
of the Requirements for the Degree of  
Doctor of Nursing Practice

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November 2018

## Abstract

The purpose of this project was to implement an educational program that provided psychiatric nurses with the knowledge and skills to engage patients with a diagnosis of schizophrenia in self-care management regarding medication and treatment adherence. The theory employed in the project was the educational theory. Evidence of effectiveness came from a pre- and postintervention assessment of nurses' knowledge and confidence in teaching about medication, along with a pre- and postassessment of knowledge gained as a result of the educational intervention. Pre- and posteducational rates of patient rehospitalization for medication nonadherence were compared. The results indicated a 15% rate of readmission of schizophrenia patients prior to the educational sessions. The 30-day readmission rate decreased to approximately 5% after the educational sessions. Based on these results, it was concluded that the educational project intervention had a positive impact on improving knowledge and insight of the nurses about nonadherence to medication among patients with schizophrenia. The positive social impact of improving nurses' knowledge of educating schizophrenic patients are increased patient well-being and reduced social costs associated with relapse and readmission. Recommendations from this project include that nurses should educate patients with schizophrenia on how to adhere to medication directives and the importance of doing so.

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## Section 1: Nature of the Project

### **Introduction**

Schizophrenia is an adverse form of mental disorder that affects approximately seven individuals per 1,000 adults worldwide (Higashi et al., 2013). According to the World Health Organization (WHO; 2011), despite the incidence being low, schizophrenia has a prevalence that is high due to its status as a lasting chronic illness (WHO, 2011). In symptom and treatment control of schizophrenia, antipsychotic medication plays a crucial role. The American Psychiatric Association (2006) indicated that there should be an efficient schizophrenia management program because it needs a lasting and continuous treatment to avoid relapse and to keep symptoms in check. Even though the administration of medication is a major component of treatment for schizophrenia, one major global problem that has been recognized is the nonadherence to prescribed drug treatments, which has become the greatest problematic aspect of treating schizophrenia patients (WHO, 2003). Medication nonadherence behaviors among patients with schizophrenia include changing of daily medication doses, treatment refusal, or irregular use. Nonadherence to medication can have a negative impact on the functioning and health of the patient and a financial impact on the society. The reduction of nonadherence to antipsychotic medications can reduce psychiatric morbidity and cost of care, thereby improving the welfare of the patients who have schizophrenia and reducing the utilization of resources for acute psychotic episodes (Byerly, Nakonezny & Lescouflair, 2007).

## **Problem Statement**

The noncompliance of patients on prescribed regimens of medication and treatment by those diagnosed with schizophrenia is a serious public health issue and challenge for healthcare providers. Much of the challenge lay in a lack of understanding of medication and treatment actions among patients who are then unable to manage their disease. An educational intervention in which nurses are provided with an enhanced understanding of the issues and strategies to instruct patients regarding self-management and the importance of medication adherence may provide an answer to this dilemma. The purpose of this capstone project, therefore, was to provide nurses with the knowledge and skills to engage patients with a diagnosis of schizophrenia in self-care management about medication and treatment adherence. A patient engagement learning module with an emphasis on medication adherence was developed with emphasis on self-care management and adherence to medication and strategies to use to engage patients in self-care management.

Medication adherence can be a challenge to the schizophrenic patient; yet, improving adherence among those with schizophrenia may have a considerable positive impact on patients and society (Higashi et al., 2013). The transition from administering medication to passive patients to educating engaged patients on self-care management and medication is an area where nurses can have a major social impact. It is this transition that, according to Pilling et al. (2002), has promoted the usefulness of education therapy. According to Haywood, Marshall, and Fitzpatrick (2006), educational interventions alter key stakeholders in the process of treatment as the patient becomes an

active participant, an engaged consumer of services, rather than just a passive recipient. Education interventions may provide an ideal platform for nurses to teach patients about self-management and medication adherence for those with schizophrenia. McFarlane (2003) and Tarrier et al. (2008) indicated that educational interventions operate on utopian principles, which negate the importance and values of other therapeutic methods, including medication therapy. This project was based on the assumption voiced by Turkington et al. (2006) that mental health nurses should be educated on ways that can be implemented for expert therapy, family interventions, and case management for treatment resistance. Engaged patients will maintain adherence to medication therapy, thereby influencing a positive transition to the community.

### **Purpose Statement**

The reason for selecting this project was due to the increase in cases of nonadherence to medication by patients who have schizophrenia, which has a negative effect on their health. In the facility where this capstone project took place, approximately 15% of patients were readmitted within a 30-day period due to medication nonadherence behaviors such as changing of daily medication doses, treatment refusal, or irregular taking of prescribed medication. The occurrence of readmission due to medication nonadherence is a major concern for this facility. Nurses in this unit have acknowledged the need for improvements of medication adherence.

The purpose of this capstone project was to provide nurses with the knowledge and skills to engage patients with a diagnosis of schizophrenia in self-care management

about medication and treatment adherence and to determine if this engagement results in decreased rates of rehospitalization for nonadherence to medication administration.

### **Nature of the Doctoral Project**

The nature of the project was to help in the understanding of the current challenge of nonadherence to medication that exists with patients who have schizophrenia. The project was conducted in rural Alabama on an acute psychiatric unit that was purposively selected for two major reasons. First, Alabama has a clear strategy for dealing with mental illness and care of patients. The structure has often emphasized the need for the medical care system to focus not just on the management of symptoms as does the discipline of medicine, but also on other forms of interventions to transition the patient into the community. The need for sustainability provides an ideal ground for the promotion of education interventions. Second, Alabama maintains a structured system regarding data and specialized psychiatric care when it comes to psychiatric and mental problems and illnesses. It provided an ideal foundation from which to build a feasible project in this setting. The acute psychiatric unit is located in one of the oldest rural hospitals in Alabama that provides service to adults and geriatric patients. The 30-bed unit was designed to treat psychiatric patients with and without concurrent medical issues. Services such as psychiatric assessments, nursing assessments, medication management, group and individual counseling, and discharge planning are provided.

### **Significance of the Project**

The primary stakeholders of this project were the nurses who gained new and better skills that would enable them to engage patients with a diagnosis of schizophrenia

in self-care management about medication and treatment adherence. The project can be crucial in helping nurses better their understanding of the effect of nonadherence to medication on patients' health and functioning and the importance of medication adherence. The project helped the nurses gain new insights on ways to motivate or influence patients with schizophrenia on medication adherence.

The social change furthered by this project will be that patients who adhere to prescribed medication regimens will substantially improve their quality of life and enhance their stability in the community. The incidence of patients with schizophrenia adhering to medication will increase and rates of rehospitalization will decrease if nurses are educated about the significance of medication adherence among the patients. Improvement of adherence to medication among patients with schizophrenia will lead to a potential reduction in psychiatric morbidity and also in the reduction in the utilization of resources for acute psychotic episodes. Sharing the results of the project at the local psychiatric nursing association meetings would make it possible for the implementation of the project in other psychiatric institutions.

### **Summary**

The noncompliance of patients on prescribed regimens of medication and treatment by those diagnosed with schizophrenia is a serious public health issue. Often this is a result of the inability of prescribed regimens to sustain symptom remission among patients. It is crucial for psychiatric nurses to understand medication and treatment actions among patients who are unable to manage their disease. It is necessary for the educational intervention project to be implemented in mental hospitals so that the

nurses are provided with an enhanced understanding of the issue and strategies to instruct patients regarding self-management and the importance of medication adherence. This may help to provide an answer to the dilemma of patient medication nonadherence.

The next section of the project clarifies the impact and purpose of the project and also aids in understanding how implementation will occur. The next section includes literature reviews of previous studies conducted regarding nonadherence to medication among patients with schizophrenia. Further clarification of how data was obtained is described more in-depth later in the project paper.

## Section 2: Background and Context

### **Introduction**

Over the past decades, noncompliance of patients on prescribed regimens of medication and treatment by those diagnosed with schizophrenia has become a serious public health issue. The purpose of this capstone project was to provide nurses with the knowledge and skills to engage patients with a diagnosis of schizophrenia in self-care management about medication and treatment adherence. This section explores the theories and models that were implemented in the project, my role as DNP student, and past research on nonadherence to medications among patients with schizophrenia.

### **Concepts, Models, and Theories**

This section identifies the theoretical framework that was implemented in the project. The theoretical framework plays a significant role in guiding the whole process of projects. Theoretical frameworks lay the foundation to help explain phenomena that can otherwise be challenging. The theory implemented in this capstone project was the educational theory because the project focused on introducing educational interventions for nurses. This framework provided a foundational structure for this project.

### **Educational Therapy Theory**

Educational theory is a theory of the interpretation, purpose and application of learning and education. The significance of utilizing educational theory was that it aided in explaining a complex and puzzling issue of medication nonadherence and predicted its manifestation in the future. The theory aided the transfer of information from the trainer to the nurses. This theory is an umbrella for many theories of learning. According to Rich



(2013), learning theories are useful for understanding how people gain knowledge and skills, as well as how emotions, attitudes, and behaviors are acquired and can be changed. The educational theory can be used to provide the foundation needed for educational knowledge. Also, the theory provides an opportunity for improvement in the psychiatric hospitals.

The implementation of the education project was a change for the institution as it required the active participation of nurses. The application of the education theory helped inform the nurses on how to address nonadherence to medication among patients with schizophrenia. The theory of adult learning, which was developed by Knowles (Knowles, Holton, & Swanson, 2005), guided this study. The framework postulates that adults are most interested in learning subjects that have immediate relevance and impact to their job or personal life. Adult learning is problem-centered rather than content-oriented. In keeping with this framework, the proposed educational sessions focused on the issues of nonadherence to medication among the schizophrenic patient population and its effect on rehospitalization. As the adult learner needs to know why the course is important, knowledge gained can be applied directly to their current work situation and real-life situation. I used examples in designing the educational intervention as it is important to identify appropriate methods and convert theoretical learning to practical activities.

### **Relevance to Nursing Practice**

There has been an increase in nonadherence to prescribed drug treatments by patients with schizophrenia (Higashi et al., 2013). Nonadherence to medication has a negative impact on the patients as it can lead to readmission to hospital, suicidal ideation,

relapse, or death (Phan, 2008). The increase in nonadherence to medication in this population can cause an increase in financial burden to society and increase in complications of illness that can affect nursing practice.

Schizophrenia is a form of mental disorder that affects approximately seven individuals per 1,000 adults worldwide. While antipsychotic medications form the basis of treatment for relapse prevention and severe exacerbation for patients with schizophrenia, nonadherence to prescribed medication is frequently seen in this population. The purpose of medications is to prevent relapse and keep symptoms under control among patients. According to a Clinical Antipsychotic Trials of Intervention Effectiveness study, approximately 74% of schizophrenia patients had withdrawn from taking medication for 18 months due to intolerable side effects, insufficient efficacy, or for other reasons (Higashi et al., 2013).

Both Higashi et al. (2013) and Birnbaum and Sharif (2008) indicated that noncompliance to prescribed antipsychotic regimens is the most crucial driver of the suboptimal clinical outcomes in this population. According to research, nonadherence to medication has a great adverse impact on the patients because it can result in relapses, remission taking longer time, suicide attempts, and rehospitalization. Higashi et al. conducted a systematic review of the effect of adherence and the consequences that are associated with nonadherence to a patient who has schizophrenia. The authors identified the primary drivers that led to nonadherence are substance abuse, medication beliefs, and lack of insight. The main consequences identified because of nonadherence included suicide, hospitalization, and relapse. This identified that enhancing compliance in patients

who have schizophrenia may have a significant positive impact on society and the patient. Birnbaum and Sharif (2008) reported similar findings.

In another study, Phan (2016) also reported on factors contributing to nonadherence to medication among patients with schizophrenia including socioeconomic status, cultural influences, fragmentation of care, stigma, issues linked to treatment, substance use disorder, psychopathology, and lack of insight. Phan indicated that the most efficient strategy to enhance adherence to medication included psychoeducational and behavioral techniques.

Lindenmayer et al. (2009) conducted a post hoc analysis of patients with schizophrenia. The authors defined nonadherence as the act of not taking medication as prescribed. According to the results, nonadherent patients had significantly less improvement when compared to patients who adhered to medication. According to the authors, nonadherence to medication had a significant negative effect on treatment, and the study highlighted the significance of adherence to attain satisfactory treatment outcome. The authors indicated that the findings would help healthcare practitioners to identify patients who are at risk for nonadherence and utilize interventions that would help to enhance adherence.

As nonadherence to medication among patients with schizophrenia continues to be a problem, and, as Phan (2008) stated, all patients with schizophrenia are susceptible to nonadherence to medication, psychiatric nurses are in a crucial position to intervene in ways that will enhance adherence to medication among patients with schizophrenia. The doctoral project was implemented as an educational project in the psychiatric hospital

where nurses were asked to participate. The project provided nurses with the knowledge and skills to engage patients with a diagnosis of schizophrenia in self-care management about medication and treatment adherence. The nurses were educated about medication nonadherence among schizophrenia patients and ways of making the patients adhere to medication. This project involved educational sessions and pre- and postinterventional assessment. I used these tools to evaluate whether the project was effective.

### **Local Background and Context**

This project was conducted in rural Alabama on an acute psychiatric unit. The 30-bed unit was established to treat and manage psychiatric illnesses. The admission rates of this unit were around 6,700 patients a year. Nearly half of the admissions had a diagnosis of schizophrenia. Approximately 25 patients are admitted weekly with various psychiatric disorders. Half of these patients have a diagnosis of schizophrenia on admission. According to the unit data, three to four patients were readmitted within a 30-day time frame for nonadherence to their medication regimen. The steady rate of rehospitalization due to nonadherence to medication has become a concern for the nurses. The development of this project can make a significant impact for this organization.

### **Role of Doctor of Nursing Practice Student**

Over the past decade, there has been an increase in nonadherence to medication among patients with schizophrenia (Haddad, Brain, & Scott, 2014). For this project, I developed an educational intervention on the issues and strategies to help nurses instruct patients regarding self-management and the importance of medication adherence that may provide an answer to this dilemma. I analyzed pre- and posttests based on the

objectives of each of the sessions and determined how confident nurses were in understanding and managing medication nonadherence in the schizophrenia patient population both pre- and posteducational intervention. I assessed rates of rehospitalization for medication nonadherence one month following implementation of the educational project. I reported these outcomes to nursing staff and administrative leadership to determine any further required actions.

### **Summary**

This section identified the gap in practice from past studies that provided the foundation for the present project. In the section I also discussed the models and theories used in the project. The application of the education theory helped in educating the nurses on how to address nonadherence to medication among patients with schizophrenia. According to the literature reviews, there has been an increase in nonadherence to medication among patients with schizophrenia. The factors that contribute to nonadherence to medication among patients with schizophrenia include socioeconomic status, cultural influences, fragmentation of care, stigma, issues linked to treatment, substance use disorder, psychopathology, and lack of insight. Nonadherence to medication among patients with schizophrenia may result in increased risk of death, functional decline, readmission to hospital, relapse, and exacerbation or decomposition of symptoms. Methods for data collection and analysis are discussed in detail in the next section.

### Section 3: Collection and Analysis of Evidence

#### **Introduction**

Over the past decades, one major global problem that has been recognized is the nonadherence to drug treatments that have been prescribed, and it has become the greatest problematic aspect of treating schizophrenia patients (Kane, Kishimoto, & Correll, 2013). There is an increase in the number of patients with schizophrenia not adhering to medication (El-Mallakh & Findlay, 2015). The lack of awareness among nurses about the effect of noncompliance to medication among patients makes it difficult for them to follow up on the patient. The purpose of this capstone project was to provide nurses with the knowledge and skills to engage patients with a diagnosis of schizophrenia in self-care management about medication and treatment adherence. In this section I discuss the methodology that I used in carrying out the project, data analysis, data collection, ethical considerations, and the validity and reliability of the data.

#### **Practice-Focused Questions**

The number of patients with schizophrenia who are not adhering to medication has increased rapidly. Past studies on nonadherence to medication among patients with schizophrenia have indicated that the most effective strategy for increasing medication adherence is by use of educational interventions. The current project was aimed at implementing an educational project to inform nurses of strategies to help them engage patients with a diagnosis of schizophrenia in self-care management about medication adherence.

The question for this project was:

PFQ: What is the effect of a focused educational intervention on psychiatric nurses' knowledge regarding medication education and self-care management for the patient with schizophrenia and regarding rehospitalization of patients for nonadherence?

The purpose of this project was to ensure that patients with schizophrenia adhere to medications. The approach of this project involved the implementation of an educational project. The participants of the project were engaged in educational sessions, and pre- and postinterventional assessments were used to evaluate the effectiveness of the project.

### **Sources of Evidence**

The project represented an interventional approach. The project took place in a psychiatric hospital where nurses were asked to take part in the project. Pre- and postinterventional assessments of nurses' knowledge and confidence in teaching about medication, as well as a pre- and postassessment of knowledge gained as a result of the educational intervention provided evidence of project effectiveness. A pre- and postrate of patient rehospitalization for medication nonadherence were also compared. This aided in measuring knowledge of medication adherence. Educational sessions were conducted with every participant in the project. The educational sessions addressed medication adherence, self-management strategies to promote medication adherence, health belief contribution toward medication use, common side effects, management of side effects, and evidence-based practice strategies to promote nurses' knowledge of medication adherence among schizophrenic patients. This information was presented to increase

understanding of how this knowledge can be used in assisting patients to engage in self-care management with the anticipated result of decreasing re hospitalization for nonadherence to medication therapy. Evidence was collected by the use of a pre- and posteducation assessment. The collection of the data aided in addressing the practice-focused question because if the nurses were made aware of medication nonadherence and medication compliance improves, then the education project was effective, and it may be implemented in all the psychiatric hospitals.

Several search engines and databases were used in identifying articles on nonadherence to medication. The search engines and online journal databases used for the research included Google Scholar, PubMed, and ProQuest. The literature review examined past research conducted to examine the factors that contribute to medication nonadherence among patients with schizophrenia and consequences associated with nonadherence to medication. The keywords used in search of the information were *adherence, nonadherence, schizophrenia, and medication compliance*. The scope of the literature review was from the year 2008 to 2013. The types of the literature that were searched were clinical nurse articles and journals from the internet.

The project was conducted in an acute psychiatric unit in Alabama because it deals with mental illness and care of patients. I recruited nurses for participation in the project at staff meetings where I described the project and asked nurses to sign up to attend the educational sessions. The inclusion criteria included psychiatric nurses who were willing to be part of the project and to be included in the educational sessions. For



the exclusion criteria, psychiatric nurses not willing to be part of the project and those not willing to be included in the educational sessions was excluded from the project.

This was a minimal risk project. Ethical approval of the project was obtained from the ethics board of the hospital where the project was conducted and from Walden University Institutional Review Board (approval no. 06-18-18-0119533). The nurses willing to take part in the project were informed that participating was voluntary. The consent to take part in the project was implied by nurses signing up for the educational sessions. To maintain confidentiality and privacy of the participants, the identification information was not collected. The responses that were collected from the interventional assessments were stored in a protected area, and only I was able to access the data collected. I informed the participants that they were free to leave the project for any reason without penalty.

### **Analysis and Synthesis**

I conducted an educational intervention project to enhance nurses' knowledge of educating schizophrenic patients about medication adherence and self-management and compare the results of rehospitalization for nonadherence to medication therapy before and one month after the educational session. The project comprised three main phases: a development phase, implementation phase, and evaluation phase.

#### **The Development Phase**

The duration of the development phase was approximately 2 to 3 weeks. During the developmental stage, I developed the educational session objectives and content and pre- and postknowledge assessments on content provided. The educational session's

objectives were focused on how to engage patients in self-care management interventions.

### **The Implementation Phase**

I presented two educational sessions that addressed medication adherence, self-management strategies to promote medication adherence, health belief contribution toward medication use, common medications used for schizophrenia, side effects of medications, management of side effects, and evidence-based practice strategies to enhance nursing knowledge of medication adherence and self-care management of schizophrenic patients. I submitted the educational objectives to my preceptor and made changes accordingly. Before implementing the educational sessions, I was granted permission from the director of the hospital and chief nursing officer. I conducted the educational project over a 3-week period with one educational session in the first week and one educational session 2 weeks later. The teaching strategies that I utilized in the educational sessions included discussion, clarification, collaboration, feedback, and asking questions. Role playing of nurses teaching patients about self-care management strategies was also incorporated.

### **Evaluation Phase**

After implementing the educational sessions, the educational intervention postassessment was administered by using the same method as the preinterventional assessments. The postinterventional assessment helped establish whether nurses perceived any improvement in their knowledge on medication adherence and self-care management education to schizophrenic patients and whether their knowledge was

actually increased. One month following the educational sessions, I collected data on rehospitalization rates for medication nonadherence and compared the findings with the preeducational session results. I used frequency distributions and descriptive statistics to analyze the data.

### **Summary**

This section of the project focused on the methodology, collection of data, ethical considerations, and data analysis. The purpose of this section was to determine whether the educational program implemented in the hospital would be successful. In the next section I discuss the result obtained from the analysis.

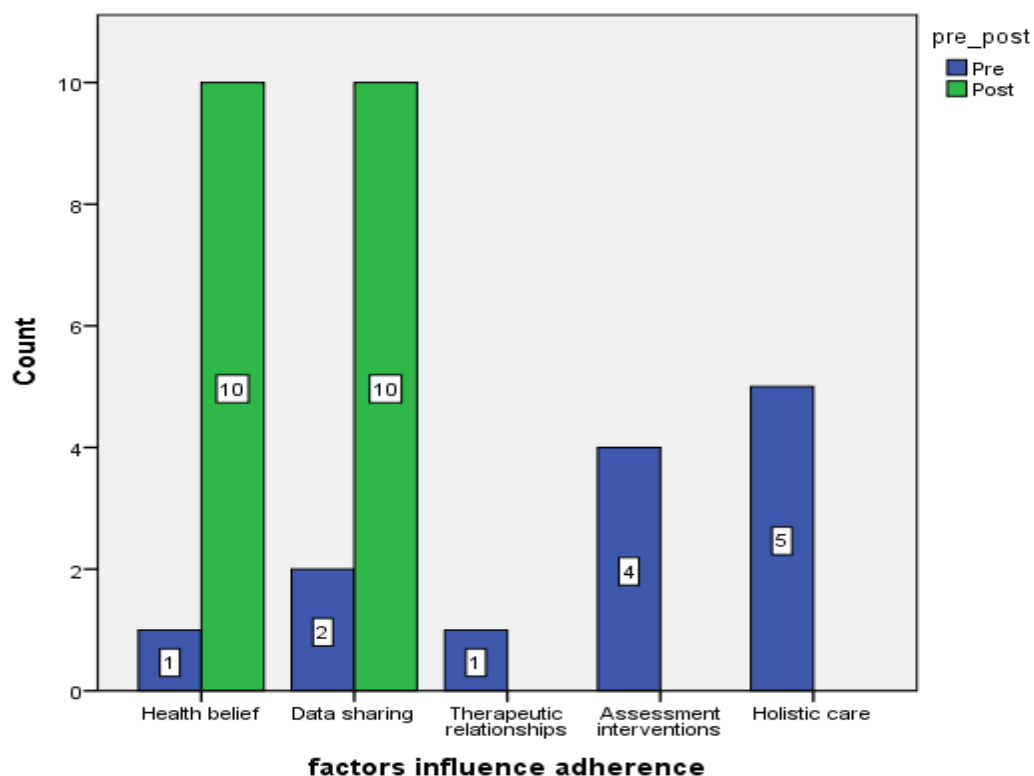
## Section 4: Findings and Recommendations

### **Introduction**

Over the last decades, one of the major challenge identified globally was nonadherence to medication that has been prescribed for schizophrenia patients (Haddad & Scott, 2014). The number of schizophrenia patients not adhering to medication is relatively high. The purpose of this capstone project was to implement an educational project in psychiatric hospitals to provide nurses with the knowledge and skills to engage patients with a diagnosis of schizophrenia in self-care management about medication and treatment adherence. In this section I discuss the findings and implications, recommendations, strengths, and limitations of the project.

### **Findings and Implications**

The findings indicate that there were some differences in factors that influenced medication adherence pre- and posteducational assessment (see Figure 1). Prior to the education sessions, the most common factor influencing adherence was holistic care followed by assessment interventions. Therapeutic relationships and health belief were the least common factors that influenced adherence. The posteducation assessments indicate there was a significant change in factors that influenced adherence. Posteducation, the two factors that were equally common were health belief and data sharing. Therefore, there was a statistically significant difference in factors that influenced adherence pre- and posteducation.



*Figure 1.* Clustered bar chart of factors that influence medication adherence among schizophrenic patients.

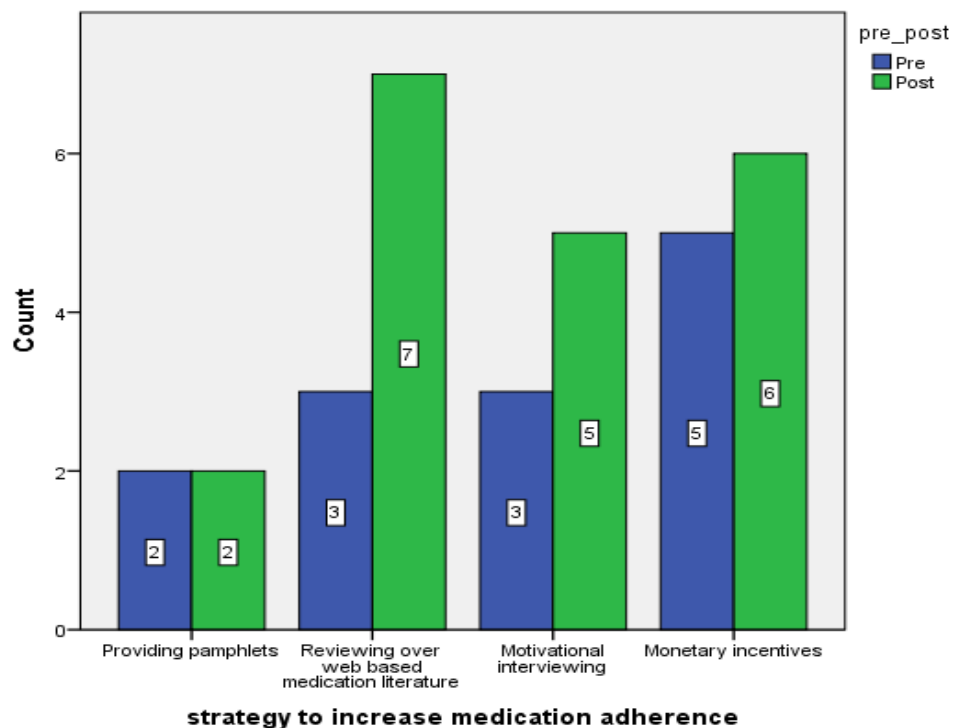
The importance of discussing medication adherence with schizophrenic patients was measured with the participants (see Table 1). The results showed that there were more participants posteducation who felt it was important to discuss adherence. However, this finding was not consistent when considering participants who did not find it important to discuss adherence. This was because there were more participants posteducation who did find it important to discuss adherence. Therefore, there were significant differences in importance of discussing adherence pre- and posteducation.

Table 1

*Cross-Tabulation of Importance of Discussing Medication Adherence With Schizophrenic Patients*

	Essential to discuss adherence	
	True	False
Pre	11	2
Post	13	7

I analyzed the strategies that can be employed in increasing medication adherence (see Figure 2). The number of participants who identified provision of pamphlets as a strategy to increase adherence was equal in pre- and posteducation. There were more posteducation participants who identified each of the other strategies as most helpful in increasing medication adherence. Therefore, the differences in pre- and posteducation were likely caused by differences in sample size.



*Figure 2.* Clustered bar chart of most helpful strategy in increasing medication adherence

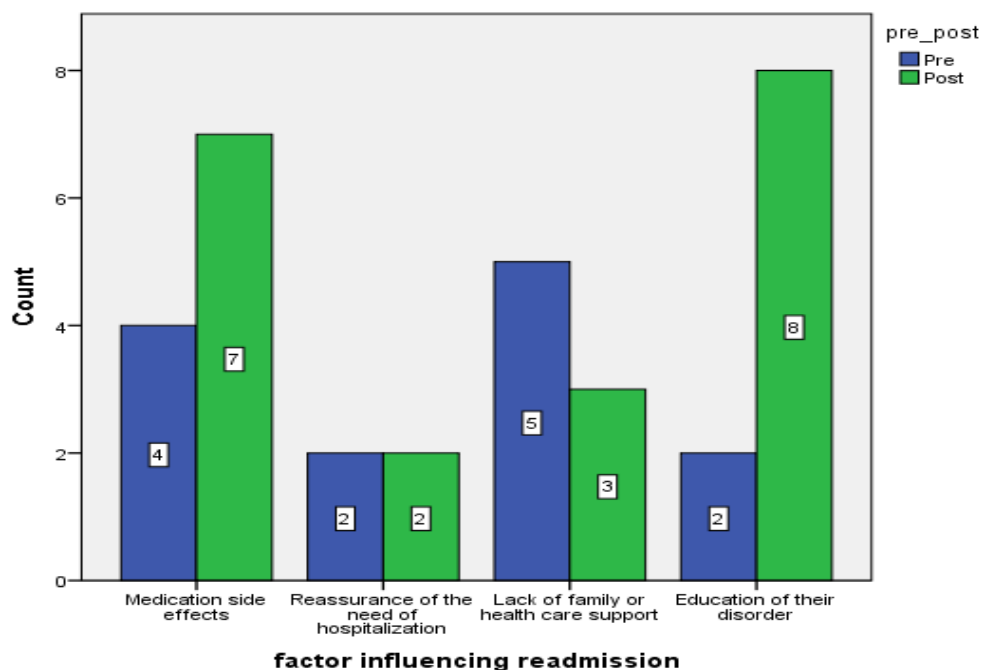
I analyzed review of medication side effects findings to identify if it was effective in promoting adherence (see Table 2). The results indicated that there were more participants' preeducation who felt reviewing medication side effects was effective in promoting adherence. The number of participants who reported communication with physicians and healthcare providers as the most effective strategy for promoting adherence was higher posteducation. The number of participants who reported documentation of patient compliance as most effective activity in promoting adherence was higher posteducation. Therefore, the differences pre- and posteducation in the most effective nursing role in promoting adherence were likely a result of sample size difference.

Table 2

*Cross Tabulation of Most Effective Nursing Role in Promoting Medication Adherence Among Patients*

	Important nursing role in adherence			
	Reviewing over medication side effects	Communicating with physicians and health care providers	Documentation of patient compliance with prescribed medication	None of the above
Pre	6	1	2	4
Post	3	3	8	6

Factors that influenced readmission of schizophrenic patients were determined. There was an equal number of participants' pre- and posteducation who reported reassurance of the need of hospitalization-influenced readmission (see Figure 3). The only factor reported by more preeducation participants was lack of family or healthcare support. In the other two factors there were more posteducation participants who reported they influenced readmission. The observed differences were due to natural variation.





*Figure 3. Clustered bar chart of most common factor influencing inpatient readmission.*

I observed that there were two strategies where the number of participants' pre- and posteducation was equal (see Table 3). The first was gaining insight into the health belief and the second was collaboration with the health team on patient medication insights. The only strategy reported by more preeducation participants was assessing the need for medication adherence with the patient. Therefore, the strategies that best supported adherence did not differ pre- and posteducation.

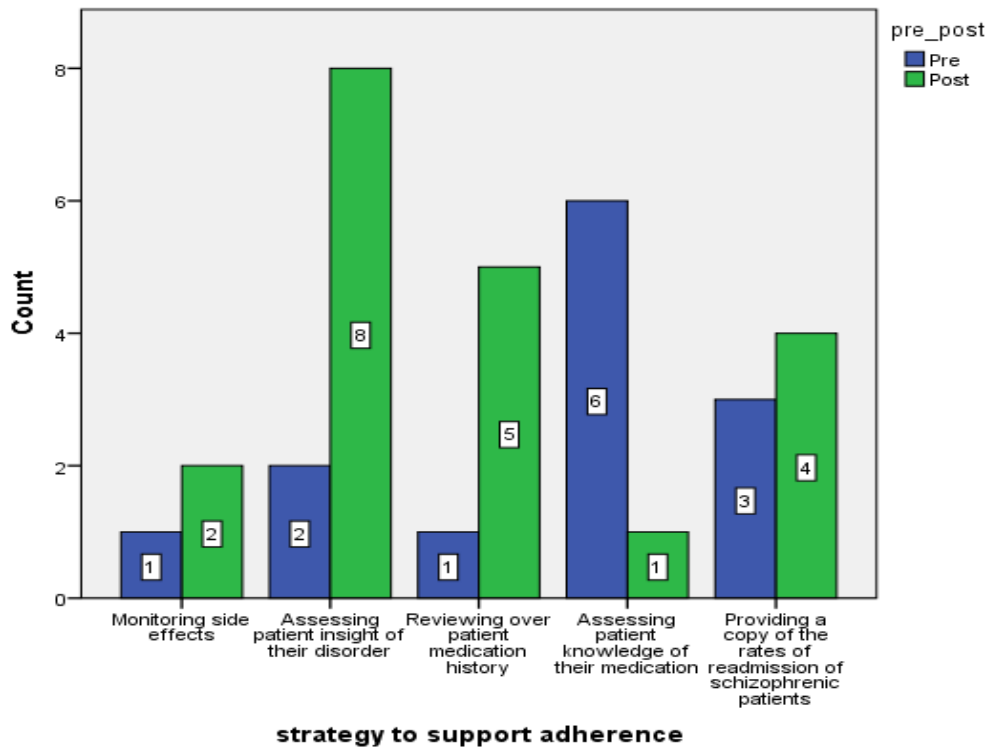
*Table 3*

*Cross Tabulation of Strategy That Best Supports Medication Adherence*

	Support for adherence role				
	Gaining insight of your health belief	Assessing the need for medication adherence with your patient	Collaboration with health team on patient medication insights	Fostering therapeutic relationship with your patients	None of the above
Pre	2	5	2	2	2
Post	2	3	2	7	6

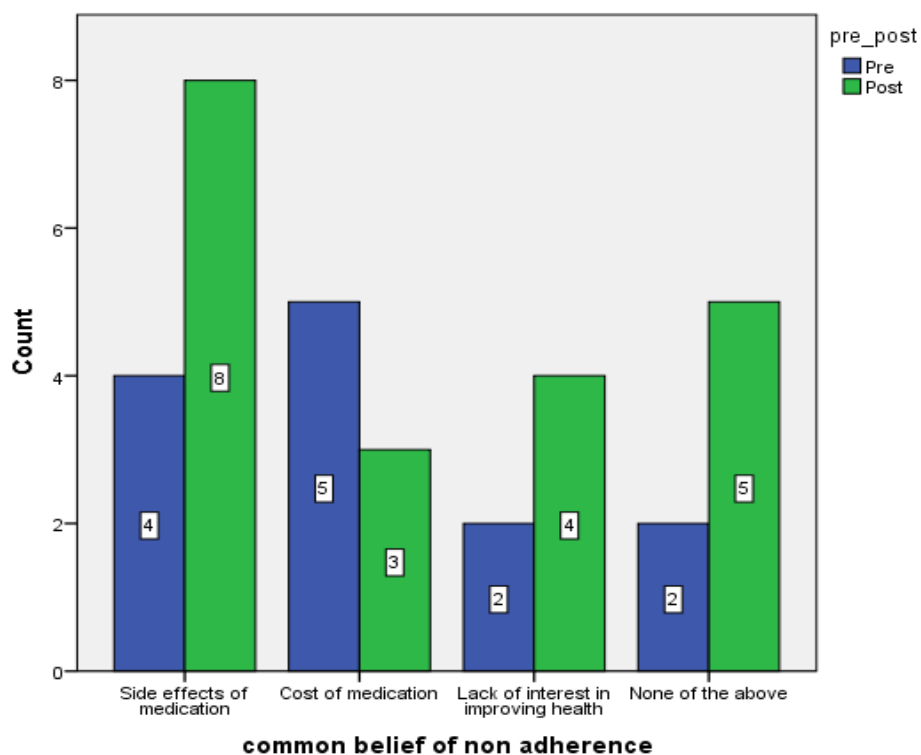
The largest change in pre- to posteducation reported was in assessing patients' insights into their disorder (see Figure 4). This finding suggests that education may have resulted in more participants believing patient assessment to be significant. Another change in pre- to posteducation was in reviewing patient medication history. This finding suggests that education reinforced the importance of reviewing patient medication. Another notable change in pre- to posteducation was in assessing patient knowledge of

their medication. This finding suggests education decreased a belief in the importance of assessing patient knowledge.



*Figure 4.* Ways in which the role of health care professional in medication adherence can be supported.

I observed that the only decrease in reporting of common belief regarding nonadherence pre- to posteducation was in cost of medication (see Figure 5). This suggests education decreased the belief that cost of medication was a factor in nonadherence. In the other beliefs there was an increase in number of participants' pre- to posteducation. This finding suggests education increased the number of participants having beliefs that medication side effects and lack of interest in improving health were common causes of nonadherence.



*Figure 5.* Clustered bar chart of most common belief of non-adherence of psychotropic drugs

There was an increase in the number of participants who reported that having an open mind, collaboration, attending follow-up, and reporting side effects were significant from pre- to posteducation (see Table 4). This finding suggests that education increased the importance of these self-management interventions. The only decrease pre- to posteducation was in participating in daily learning activities. This suggests education may have reduced a belief in the importance of participating in learning activities. Therefore, there were no differences in self-management interventions for educating patients' pre- and posteducation.

Table 4

*Cross Tabulation of Self-Management Interventions Nurses Can Use to Educate Schizophrenic Patients*

	Self-management interventions to educate schizophrenic patients				
	Report side effects of medications to their health care provider	Collaborate with health care team and their families for support	Have an open mind concerning their disorder	Participant in daily activities of learning	Attend all follow-up appointments
Pre	1	1	4	4	3
Post	4	4	6	2	4

There was an increase pre- to posteducation in educational strategies to increase adherence with the exception of having patients write down all medications they were taking (see Table 5). From this observation it can be noted that education decreased a belief in the importance of having patients write down medications and increased belief in the importance of the other educational strategies. Therefore, educational strategies to increase medication adherence did differ pre- and posteducation.

Table 5

*Cross Tabulation of Educational Strategies That Can Be Used to Increase Medication Adherence*

	Educational strategies to increase medication adherence				
	Having a written agreement with patient about taking their medication	Acknowledging the need to revise their way of thinking	Verify daily conversations about disorder with family	Discuss with patients the link between taking their medication and wellness	Having patient write down all medications that they are taking
Pre	2	2	4	3	2
Post	3	6	6	4	1

Finally, I observed that after the education sessions, the rate of readmission of schizophrenia patients had been reduced. I compared a 30-day admission/readmission rate pre- and posteducation session. A 15% rate of readmission after 30 days for schizophrenia patients preeducation session decreased to approximately 5% after the education session.

### **Recommendations**

It is crucial for healthcare practitioners to be aware of educational strategies that can promote medication adherence. Enhancing nurses' knowledge of the importance of medication adherence through educational sessions can improve patient lives. The financial impact of nonadherence to medications can be a burden to society. Implementing educational sessions within hospital settings can have a lasting effect in making a difference for patients and society overall. Healthcare practitioners having the knowledge and experiences to educate their patients about medication adherence can promote positive social change. Increasing knowledge of limiting the number of different

medications to the minimum required for controlling symptoms will not only make it easier to monitor side effects and clinical response, but it will also help in reducing the potential for severe drug interactions that are unintended and improve medication adherence.

The most crucial aspect of determining the best options from the available antipsychotics are the side effect limitations and efficacy attributes of each drug, and how to appropriately dose each agent by the stage of illness, diagnosis of the patient, and other factors. Nurses with this knowledge can help promote medication adherence and self-care management of the schizophrenic patient.

Nurses should educate patients with schizophrenia on how to adhere to medication directives and the importance of doing so. Also, when nurses have a positive attitude and are compassionate in providing quality care to patients, it will motivate the patients to comply with medication directives.

### **Limitations**

This capstone project was subjected to several limitations. I may have overestimated medication adherence because it was impossible to confirm the treated days of patients receiving oral therapies. The information that was available was only on the prescriptions filled but not on medications taken. It was difficult to accurately reflect adherence to medications based on the information available. The analysis of this project's outcomes was cross-sectional and did not determine the circular nature of the correlation that exists between treatment type, hospitalizations, adherence, and other variables.

The sensitive nature of the topic could have led to bias response from the participants. There was no generalizability of the results in another hospital setting because the project was limited to the nurses in a psychiatric hospital in Alabama. The small sample size of the participants limited the generalization of the project. The project having been conducted in one place limits the observation because there is no other data from other places with which to compare it. This raises questions on the validity of the results obtained.

## Section 5: Dissemination and Conclusion

The dissemination of evidence took place after the completion of the project. This was achieved by obtaining the evidence from the project and meeting with the nurse manager and the nursing staff. I presented the evidence of my project along with ideas to stimulate adoption of the strategies on the psychiatric unit. The evidence that was obtained in the course of the project was delivered to the stakeholders. The project was completed successfully in the set time frame.

The education project was proven to be of help in informing nurses on medication adherence. If medication adherence increases among patients, then the program is considered effective and significant to be implemented in other hospitals. The project will be shared with local psychiatric nurse association for possible implementation in psychiatric hospitals. The hospital administration will be informed about the essence of introducing the education project into their system and how it could aid in enhancing medication adherence and reducing relapses among patients with schizophrenia.

After successful implementation of the project in the psychiatric hospitals at the local level and evidence of success in other hospitals where the project was implemented, the project will be shared at the state level for further evaluation.

### **Analysis of Self**

The reason for this educational project was the alarming rate of patients with schizophrenia not adhering to their medications. I felt the need to make a change that could benefit schizophrenic patients and society. Nonadherence to medication has a great



impact on the functioning and health of the patient and also a financial impact on society. I thought of strategies that could be implemented in an effort to reduce nonadherence to medication. I knew there were no guarantees that any of the strategies I came up with would be successful in reducing nonadherence, but I determined it was important to try. I took it upon myself to start a project of educating nurses on medication adherence and to implement it in a sample hospital to determine whether the project could be successful in reducing nonadherence to medication among schizophrenia patients. One of the greatest challenges I faced in carrying out this project was to convince nurses to take part in the project due to the sensitive nature of the topic. The project will help nurses by educating them about medication adherence among patients with schizophrenia, and it will help reduce nonadherence.

### **Conclusion**

One of the major challenges that has been identified among patients with schizophrenia is nonadherence to medication. Nonadherence to medication has a great impact on the functioning and health of the patient and also a financial on society. The Noncompliance with medication among patients with schizophrenia has become a major health issue. Much of the challenge is due to lack of understanding of medication and treatment actions among patients who are then unable to manage their disease. The project was conducted with the objective of providing nurses with the knowledge and skills to engage patients with a diagnosis of schizophrenia in self-care management about medication and treatment adherence. The reason for conducting the project was to ensure that medication adherence improves among patients, which would have a positive impact

on patient well-being and society. The project was conducted in an acute psychiatric unit in Alabama that deals with mental illness and care of patients. The project was completed successfully, and the measure of success was obtained. The implementation of the education sessions in the psychiatric institution was found to be effective in informing nurses on medication adherence. After the project, medication adherence among schizophrenia patients was found to have improved. Based on the results obtained in the project, I concluded that the education project intervention had a positive impact on improving knowledge and insight of the nurses about nonadherence to medication among patients with schizophrenia.

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## Appendix: Pre- and Posteducational Assessment

## Pre and Post Educational Assessment

1. Which factors influence medication adherence among schizophrenic patients?  
Select all that apply
  - a. Health belief
  - b. Data sharing
  - c. Therapeutic relationships
  - d. Assessment interventions
  - e. Holistic care
2. As a health care professional, it is essential to discuss medication adherence with a schizophrenic patient?
  - a. True
  - b. False
3. Which strategy can be most helpful in increasing medication adherence among schizophrenic patients?
  - a. Providing pamphlets
  - b. Reviewing over web based medication literature
  - c. Motivational interviewing
  - d. Monetary incentives
4. Which nursing role is most effective in promoting medication adherence among schizophrenic patients?
  - a. Reviewing over medication side effects
  - b. Communication with the physicians and healthcare providers
  - c. Documentation of patient compliance with prescribed medication
  - d. None of the above
5. What is the most common factor influencing acute care inpatient readmission of the schizophrenic patient?
  - a. Medication side effects
  - b. Reassurance of the need of hospitalization
  - c. Lack of family or health care support
  - d. Education of their disorder
6. Which strategy best support medication adherence in schizophrenia. Select all that apply:
  - a. Monitoring side effects
  - b. Assessing patient insight of their disorder
  - c. Reviewing over patient medication history
  - d. Assessing patient knowledge of their medication

- e. Providing a copy of the rates of readmission of schizophrenic patients
- 
- 7. As a healthcare professional, your role in medication adherence for the schizophrenic patient can be supported through
    - a. Gaining insight of your health beliefs
    - b. Assessing the need for medication adherence with your patient
    - c. Collaboration with health team on patient medication insights
    - d. Fostering a therapeutic relationship with your patients
    - e. None of the above
- 
- 8. What is one of the most common belief of non-adherence of psychotropic drugs
    - a. Side effects of medication
    - b. Cost of medication
    - c. Lack of interest in improving health
    - d. None of the above
- 
- 9. Which self-management interventions nurses can use to educate schizophrenic patients: Select all that apply
    - a. Report side effects of medications to their health care provider
    - b. Collaborate with health care team and their families for support
    - c. Have an open mind concerning their disorder
    - d. Participant in daily activities of learning
    - e. Attend all follow-up appointments
- 
- 10. Which educational strategies can be used to further increase medication adherence among schizophrenic patients: Select all that apply
    - a. Having a written agreement with patient about taking their medication
    - b. Acknowledging the need to revise their way of thinking
    - c. Verify daily conversations about disorder with family
    - d. Discuss with patient the link between taking their medication and wellness
    - e. Having patient write down all medications that they are taking