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Studying the Impact of Hyperlipidemia Monitoring Tools on Referral Rates in Patients Taking Antipsychotics

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STUDYING THE IMPACT OF HYPERLIPIDEMIA MONITORING TOOLS ON REFERRAL RATES IN PATIENTS TAKING ANTIPSYCHOTICS

by

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ABSTRACT

The purpose of this DNP project is to determine how well an evaluation tool may be used to track hyperlipidemia in patients using antipsychotic medicines who are between the ages of 20 and 50. Elevated lipid contents in the bloodstream, or hyperlipidemia, increase the danger of heart-related illnesses. Antipsychotic drugs, frequently administered for mental health disorders and dyslipidemia, have been connected. The goal is to ascertain whether utilizing an evaluation tool raises the three-month referral rates for hyperlipidemia to primary care (Dayabandara et al., 2017).

The foundation of the research is found in several articles collected from different websites. According to the data, second-generation Lipid levels can rise with antipsychotics such as olanzapine and clozapine This DNP project will utilize Social Cognitive Theory and Theory frameworks to offer an organized method for recognizing and resolving the problem. Among the specific objectives is raising the bar for care (Fauzi et al., 2023). Given to those with hyperlipidemia, guaranteeing a systematic assessment of risk variables and increasing the number of primary care doctors who receive referrals for preventative maintenance (Dayabandara et al., 2017).

This research supports the DNP Essentials. The fundamentals of interprofessional collaboration, patient-centered care, and successful leadership communication (Fauzi et al., 2023). Putting in place an evaluation instrument and teaching patients about hyperlipidemia and cholesterol control can enhance the standard of treatment overall as well as patient outcomes. More investigation is required to evaluate the intervention's efficacy and pinpoint the element.

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DEDICATION

I want to express my heartfelt gratitude and appreciation to my beloved husband; his understanding, devotion, and dedication have been extraordinary. In addition, I would especially like to thank Aniya, Anitra, Andre, and Addison, our lovely children. Throughout this process, their exceptional understanding and patience have been genuinely extraordinary. They may have had to make innumerable sacrifices, but they never wavered and continued to be there for me, encouraging and motivating me to no end. Throughout our scholastic adventure, their love and encouragement have been a never-ending source of motivation.

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LIST OF ABBREVIATIONS

BMI	Body Mass Index
CDC	Centers for Disease Control
DNP	Doctor of Nurse Practice
IRB	Institutional Review Board
MD	Medical Doctor
OHRP	Office for Human Research Protection

CHAPTER I – INTRODUCTION

The DNP project's question was motivated by the observed correlation between antipsychotics and hyperlipidemia among the psychiatric population. Antipsychotic medicines are commonly prescribed for treating psychiatric disorders, including but not limited to schizophrenia, bipolar disorder, and depression (Dayabandara et al., 2017).

Background

Hyperlipidemia is characterized by elevated concentrations of lipids in the bloodstream, including cholesterol and triglycerides (Dayabandara et al., 2017). High lipid levels have been associated with an increased susceptibility to cardiovascular diseases, including myocardial infarction and cerebrovascular accidents.

The correlation between antipsychotics and hyperlipidemia was initially established during the 1980s when scientific investigations revealed that specific antipsychotic drugs, namely clozapine, and olanzapine, were linked to elevated levels of triglycerides and cholesterol in the bloodstream (Dayabandara et al., 2017). Additional studies have substantiated the association between antipsychotic medications and hyperlipidemia, revealing the existence of alternative antipsychotic agents that can induce dyslipidemia.

Significance

To make a well-informed decision regarding initiating a treatment regimen, it is imperative to possess a comprehensive understanding of the potential side effects and adverse reactions associated with a specific antipsychotic medication (Dayabandara et al., 2017). The monitoring and management of patients receiving antipsychotic medication are of utmost importance. Regular monitoring of cholesterol levels and other

metabolic laboratory tests may be imperative to detect any potential alterations in the patient's health status during the early stages of treatment, enabling healthcare providers to respond appropriately.

By comprehensively understanding the many risk factors, individuals can enhance their comprehension of the significance of monitoring and effectively managing their health. A scientific and academic interest exists in exploring the association between antipsychotic medications and hyperlipidemia. The individuals may exhibit curiosity in comprehending the underlying mechanisms that contribute to this link and investigating how these mechanisms may be influenced by specific treatments or health disparities (Dayabandara et al., 2017).

Problem Statement

In patients between the ages of 20-50 who are taking antipsychotic medications, (I) does implementing an assessment tool to monitor hyperlipidemia(C) compared to not using an assessment tool(O) increase the referral rates to primary care for hyperlipidemia (T) observed within three months?

Available Statement

Hyperlipidemia denotes the presence of elevated lipid concentrations in the bloodstream, augmenting the susceptibility to cardiovascular ailments. Antipsychotic medicines are commonly employed in treating many mental conditions, such as schizophrenia, bipolar disorder, and depression. Multiple clinical investigations have demonstrated that several antipsychotic drugs can potentially elevate blood lipid levels, increasing the risk of developing hyperlipidemia (Ono et al., 2018).

The primary cause of this effect can be attributed to second-generation antipsychotics. The utilization of second-generation antipsychotics, including clozapine, olanzapine, and quetiapine, has been observed to significantly elevate the concentrations of total cholesterol, triglycerides, and low-density lipoprotein (LDL) in the bloodstream (Ono et al., 2018). Additional second-generation antipsychotics that have demonstrated a diminished impact on lipid levels encompass risperidone, aripiprazole, and ziprasidone. Numerous antipsychotic medications have demonstrated in clinical trials the potential to elevate blood lipid levels, potentially precipitating hyperlipidemia's onset (Ono et al., 2018).

The specific etiology of hyperlipidemia induced by antipsychotic drugs remains uncertain; nonetheless. According to Ono et al. (2018), it is hypothesized to be associated with the medications' impact on various metabolic pathways, such as glucose metabolism and insulin resistance, according to Ono et al.

Needs Assessment

Upon assessing the clinic's requirements, it was ascertained that a diverse patient population exhibited elevated cholesterol levels while administering antipsychotic medications. This finding has been substantiated and is currently seen as a growing problem within the clinic. Additionally, it was observed that the clinic did not possess an assessment tool specifically designed for persons with hyperlipidemia. Furthermore, there was a lack of patient education regarding the importance of cholesterol regulation while undergoing antipsychotic treatment (Roohafza, 2023). The DNP project intended to assess the comparative efficacy of employing an evaluation tool versus not utilizing

one, as ascertained through a retrospective analysis of medical records, and to examine if this practice enhances the rates of patient referrals in primary care.

The intended target population comprises individuals who are receiving antipsychotic treatment and subsequently develop hyperlipidemia (Roohafza, 2023). The primary objective of the DNP project was to examine the impact of utilizing an evaluation tool on the rates of referral to primary care to determine whether such utilization leads to an increase or decrease in these rates (Roohafza, 2023).

The assessment method would further aid in identifying the specific areas that require improvement or intervention to achieve enhanced outcomes or care standards (Roohafza, 2023). The objective of the requirements assessment would be to examine the strengths and limitations of current methodologies, resources, and potential obstacles. Ultimately, the data obtained from the needs assessment will provide valuable insights to practitioners, enabling them to effectively devise and implement interventions or approaches to improve patient care quality (Roohafza, 2023).

The primary objective was to ascertain an appropriate assessment methodology to monitor hyperlipidemia. This DNP project was intended to identify the most effective assessment tool for monitoring hyperlipidemia and examine its impact on referral rates (Roohafza, 2023). The objective of the DNP project was to evaluate the suitability of utilizing the assessment tool in a clinical setting. This objective was accomplished by conducting a retrospective chart review to compare the outcomes of patients who were administered the assessment tool with those who were not.

Synthesis of Evidence

This DNP project was based on a selection of seven articles. The search engines utilized in the DNP project included Google Chrome, Antipsychotic.com, Web MD, PubMed, Frontiers in Psychiatry, and Psychiatry.com. The search phrases employed encompassed atypical antipsychotics, conventional antipsychotics, lipid profiles, weight gain-reducing medications, metabolic syndrome, treatment adherence, and schizophrenia (Roohafza, 2023).

Focused Topics and Evidence-Based Findings

As per the management of weight gain associated with antipsychotic medication, antipsychotic medications have been associated with weight gain and an increased risk of hyperlipidemia, leading to elevated amounts of fat in the bloodstream (Ono et al., 2021). The article titled “High-density lipoprotein cholesterol and antipsychotic medication” posits that sedentary lifestyles play a significant role in the development of obesity (Ono et al., 2021, pp. 2-7). The article titled “High-density lipoprotein cholesterol and antipsychotic medication” posits that sedentary lifestyles play a significant role in the development of obesity (Ono et al., 2021, pp. 2-7). The DNP project examined the relationship between obesity, sedentary lifestyles, and elevated cholesterol levels in individuals receiving antipsychotic treatment, as discussed in two scholarly studies (Ono et al., 2021). Promoting cholesterol levels over a prolonged period might result in atherosclerosis, characterized by plaque accumulation within the arterial walls. This, in turn, elevates the susceptibility to heart disease and various other cardiovascular ailments.

According to recent research conducted by Kanagasundaram et al. (2021), it has been observed that second-generation antipsychotics have the potential to induce dyslipidemia, characterized by elevated levels of lipids such as cholesterol and triglycerides. This article investigates the correlation between the use of second-generation antipsychotics and the occurrence of high lipids and cholesterol levels in individuals (Kanagasundaram et al., 2021). These lipids accumulate in the bloodstream and have been linked to severe and perhaps lethal consequences.

The administration of antipsychotic medications is associated with the development of hyperlipidemia. Hyperlipidemia can be attributed to these medications' blockage of hepatic receptors, which subsequently leads to the accumulation of lipids in the bloodstream (Kanagasundaram et al., 2021). Both first-generation and atypical (second-generation) antipsychotics are associated with an increased risk of high triglyceride and cholesterol levels. Certain antipsychotic medications have been observed to engage in interactions with insulin metabolism, which may result in the development of insulin resistance and dyslipidemia. Hyperlipidemia has been associated with atypical antipsychotics, including Clozaril, Zyprexa, Seroquel, Risperdal, and Invega. The utilization of various pharmaceutical substances has diverse effects on patients. When initiating the administration of antipsychotic medicine, it is imperative to incorporate dietary considerations, physical activity, and regular surveillance (Kanagasundaram et al., 2021).

Rational-Framework-Models Concepts-Theories

In academic discourse, various models, concepts, theories, and rational frameworks serve as foundational pillars for understanding and analyzing multiple

phenomena (Dayabandara et al., 2017). These intellectual constructs provide scholars with a systematic and structured approach to comprehending complex subjects, enabling them to develop insightful insights and draw meaningful conclusions (Dayabandara et al., 2017).

The theoretical framework model employed in the DNP project was the Social Cognitive Theory. According to this idea, individuals acquire and assimilate novel behaviors using observation, modeling, and reinforcement (Dayabandara et al., 2017). A potentially more effective approach could involve implementing a behavior modification plan that encourages collaboration and solicits input, all while promoting adherence to approved prescribing standards. Another potential framework model that could be employed is the system theory model. According to Systems Theory, problems often arise due to intricate interactions among diverse components within a system. This theoretical framework has the potential to elucidate how several elements, including healthcare legislation, reimbursement models, and provider education, may influence the issue of hyperlipidemia and antipsychotic medication (Dayabandara, et al., 2017

Specific Aims

The primary objective is to enhance the standard of care provided to individuals with hyperlipidemia who are also receiving antipsychotic treatment (Dayabandara et al., 2017). The objective is to ensure that healthcare practitioners adhere to a systematic approach in evaluating the risk of hyperlipidemia in patients before prescribing antipsychotics and that any identified risk factors are appropriately managed (Dayabandara et al., 2017). The primary objective is to increase the number of referrals

to primary care physicians to prevent hyperlipidemia and its associated complications among this specific group of patients (Dayabandara et al., 2017)

DNP Essentials

The American Association of Colleges of Nursing (AACN) has identified eleven critical categories that are relevant to nursing practice and correlate with the issue statement. Among these domains are informatics and healthcare technology, professional partnership, nursing practice knowledge, quality and safety, person-centered care, personal, professional, and leadership development, population health, professionalism, scholarship for the nursing discipline, and systems-based practice (AACN, 2021).

Domain 1 deals with informatics and healthcare technology are critical to efficient and effective patient care. Using evaluation tools to monitor hyperlipidemia in patients taking antipsychotic drugs improves data collection accuracy and timeliness, assisting in identifying at-risk persons (AACN, 2021).

Doman 2 addresses professional cooperation entails collaboration between healthcare providers and patients, enabling shared decision-making and better health outcomes.

Assessment tools can help ease discussions with patients about their lipid profile, allowing for early diagnosis and intervention. Nursing practice knowledge is required for nurses to understand hyperlipidemia assessment, prevention, and management thoroughly; this addresses Domain 3 (AACN, 2021). Assessment tools offer nurses evidence-based guidelines, improving their capacity to assess and treat this disorder.

Nursing practice relies heavily on Domain 4 quality and safety. Healthcare practitioners can assure uniform and accurate monitoring of hyperlipidemia by using evaluation tools, lowering the risk of missed diagnosis or delayed referrals to primary care. Individual needs and preferences are prioritized in person-centered care.

Person-centered care Domain 5 addresses using screening tools to identify people at risk for hyperlipidemia and provide targeted interventions to increase referrals to primary care can help with this approach, Domain 4, quality and safety, is addressed (AACN, 2021).

In Domain 6 personal, professional, and leadership development ensures that nurses always learn and progress in their field. Learning to use evaluation tools successfully and drive referrals to primary care for hyperlipidemia improves nurses' skills and improves their professional progress.

Population health Domain 7 is concerned with treating health issues on a bigger scale. Implementing hyperlipidemia monitoring assessment tools enables nurses to follow trends and patterns, resulting in targeted interventions and improved population health outcomes (AACN, 2021).

Nursing professionalism Domain 8 entails ethical behavior, accountability, and a commitment to quality care. Assessing and referring patients for hyperlipidemia is consistent with these values and encourages professionalism.

Scholarship in nursing Domain 9 entails conducting research and contributing to the evidence basis. Using evaluation tools for monitoring hyperlipidemia helps gather data and adds to nursing knowledge about this condition.

The complexity of healthcare systems recognized in systems-based practice is known to be Domain 10, which emphasizes the importance of coordinated treatment. Implementing evaluation tools encourages a systematic approach to hyperlipidemia monitoring and makes referrals to primary care easier, providing continuity of care (AACN, 2021). Finally, the ten essential domains of the AACN are all relevant to the given PICO question: informatics and healthcare technology, professional partnership, knowledge of nursing practice, quality and safety, person-centered care, personal, professional, and leadership development, population health, professionalism, scholarship for the nursing discipline, and systems-based practice. Using evaluation methods to monitor hyperlipidemia in antipsychotic drug patients corresponds to these dimensions, supporting effective, patient-centered nursing care (AACN, 2021).

Utilizing a patient-centered approach to communication and information-sharing involves considering individual patient needs and preferences (Casey, n.d.). Within the scope of this research, healthcare professionals can customize training resources and communication approaches to cater to the distinct requirements of individuals receiving antipsychotic treatment. This treatment may involve addressing apprehensions regarding potential adverse effects and offering practical advice for managing cholesterol levels (Casey, n.d.).

Healthcare practitioners can enhance patient engagement, treatment quality, and patient outcomes by prioritizing patient-centered care and educating patients regarding hyperlipidemia and cholesterol management. Interprofessional teamwork is a valuable approach to providing holistic care that addresses the many requirements of patients, encompassing their physical, psychological, and social well-being (Casey, n.d.). When

healthcare professionals engage in collaborative efforts, they can recognize potential difficulties in reducing cholesterol levels among patients on antipsychotic medications, such as adverse effects of the drug or challenges in adhering to lifestyle modifications (Casey, n.d.). Consequently, they may develop strategies to address these barriers and find methods to overcome them effectively—the sixth domain. The implementation of interprofessional teamwork plays a crucial role in ensuring the provision of consistent and coordinated messaging regarding hyperlipidemia and cholesterol medication to patients (Casey, n.d.). For instance, a pharmacist delivers drug counseling and advises adherence, whereas a primary care physician may recommend dietary modifications and lifestyle alterations (Casey, n.d.). Establishing efficient interprofessional teamwork is paramount in providing patient-centered treatment and disseminating knowledge to patients regarding hyperlipidemia and cholesterol (Casey, n.d.).

Summary

In summary, implementing an evaluation instrument about hyperlipidemia and hypercholesteremia for individuals utilizing antipsychotic medications can potentially enhance patient outcomes, referral rates, and prescribing practices. Better patient outcomes can be achieved by augmenting patients' understanding, attitudes, and behaviors concerning managing their cholesterol levels and mitigating cardiovascular disease risk (Casey, n.d.).

The educational system has the potential to be modified to cater to the specific requirements of individuals undergoing treatment with antipsychotic medications. The effectiveness of the intervention might be assessed by analyzing alterations in patients' knowledge, attitudes, and behaviors alongside clinical results such as modifications in

cholesterol levels or the occurrence rate of cardiovascular events (Casey, n.d.). Identifying factors contributing to an intervention's efficacy or inefficacy can potentially enhance patient outcomes. The primary objective of this DNP project was to provide patients with comprehensive knowledge of hyperlipidemia and cholesterol. Implementing an assessment tool can improve the quality of care and reduce the probability of adverse outcomes in this group of patients (Casey, n.d.).

CHAPTER II – METHODS

This DNP project aimed to investigate the impact of employing an evaluation tool compared to not using an assessment tool on referral rates in a clinical context for patients undergoing antipsychotic drug treatment over three months. The objective of the DNP project was to furnish empirical evidence on the assessment tool's efficacy in enhancing the clinic's referral rates.

Additionally, the DNP project sought to identify any obstacles or difficulties associated with implementing the assessment instrument within clinical settings. The intervention was customized to meet mental health clinics' specific needs and characteristics, according to Ono (2018).

The target demographic consisted of individuals aged 20 to 50 receiving antipsychotic medication and may have preexisting comorbidities such as hyperlipidemia or cardiovascular disorders. Customizing the solution is imperative to suit the specific patient population. When designing the intervention, it is essential to consider the providers' characteristics, training, experience, and attitudes toward hyperlipidemia and antipsychotic medication. The intervention considered the accessibility of resources, including personnel and technological infrastructure. According to Dayabandara et al. (2017), it is essential to incorporate training, education, assessment tools, and feedback as integral components of the intervention's implementation plan.

Intervention

The strategy involved the utilization of a hyperlipidemia screening tool specifically designed for those on antipsychotic medication. The tool incorporated a series of inquiries to evaluate the patient's lipid profile, including their medical

background about lipid problems, familial medical history, lifestyle choices, and ongoing drug regimen. The instrument was administered during the patient's initial consultation and at frequent intervals by the prescribing healthcare professional or a healthcare team member, such as a nurse or provider. The intervention approach involved the development of a hyperlipidemia evaluation instrument or metabolic screening tool, which would be implemented in a series of sequential steps.

As a researcher, a series of inquiries were established to evaluate the patient's lipid profile, weight, height, BMI, glucose, medical background related to lipid disorders, familial medical history, lifestyle variables, and existing drug regimen. The instrument was implemented during the patient's initial consultation and at periodic intervals by the prescribing practitioner or a healthcare team member, such as a nurse or pharmacist (Olose et al., 2017). As a researcher, it is imperative to prioritize the clarity and simplicity of the questions posed to patients and providers, ensuring their comprehensibility. The healthcare team responsible for the intervention of prescribing antipsychotics would typically include the prescribing practitioner, nurse, and other pertinent healthcare professionals involved in the patient's care.

The healthcare professional responsible for prescribing would either personally administer the hyperlipidemia evaluation instrument or assign the responsibility to a trained team member. Based on the outcomes of the evaluation instrument, the nurse and physician would engage in counseling sessions with patients and offer suitable recommendations to the prescribing practitioner. With appropriate authorization, healthcare professionals in comparable healthcare environments may be employed.

The Study of Intervention

The intervention study aimed to assess the effects of the project on enhancing the prescription practices of antipsychotic medications among individuals with hyperlipidemia. The selection of the evaluation approach for assessing the project's impact depended on the nature of the planned intervention. It will involve a randomized controlled trial. (Ono et al., 2018). To ascertain whether the observed outcomes can be attributed to the interventions implemented in the project, a comprehensive evaluation process of high academic standards would need to be conducted (Ono et al., 2018).

The DNP project included individuals who are currently on antipsychotic medication, attending an outpatient clinic, and fall between the age range of 20 to 50 years as suitable participants. Individuals with a documented medical history of hyperlipidemia or those presently undergoing treatment for hyperlipidemia were ineligible for inclusion in the DNP project (Ono et al., 2018). The evaluation tool was administered to the intervention groups during regular psychiatry sessions to assess and monitor the presence of hyperlipidemia.

The assessment instrument encompassed a lipid profile examination at the first stage and afterward at three-month intervals (Ono et al., 2018). The examination findings were deliberated with the individuals during their initial consultation at the mental health facility (Ono et al.,2018). The key outcome measure of interest was the rate at which patients with hyperlipidemia were referred to primary care during the designated research period (Ono et al. 2018). Data collection commenced at the onset and continued at six-week intervals over the subsequent year. Data collection involved using medical records and conducting interviews with patients. A statistical analysis was conducted to compare

the referral rates for hyperlipidemia to primary care between the retrospective chart review and the implemented tool. Statistical approaches would be employed to compare other outcome metrics.

The DNP project adhered to ethical criteria for conducting research with human subjects. Before their participation, all individuals will provide informed consent, and measures will be taken to ensure the privacy and confidentiality of their information (Tarraf & Naja, 2016).

Population of Interest

The intervention was aimed at those diagnosed with mental disorders who are administered antipsychotic drugs and are susceptible to hyperlipidemia. Individuals diagnosed with schizophrenia, bipolar disorder, or other mental diseases who have been prescribed antipsychotic medications for at least six months may fulfill the specified requirements for inclusion (Tarraf & Naja, 2016).

Exclusion criteria encompassed pregnant individuals with a medical history of hyperlipidemia or cardiovascular illness or who are presently undergoing treatment with hyperlipidemia drugs (Tarraf &Naja, 2016).). The most pertinent statistical analysis for this trial involved comparing the rates of hyperlipidemia referrals to primary care between the retrospective chart review and the implemented tool (Tarraf & Naja, 2016). One potential recruiting strategy involved collaborating with mental health clinics to ascertain suitable candidates and afterward reaching out to them to provide an invitation to participate in the research (Tarraf & Naja, 2016). Determining the sample size and recruiting methods was contingent upon the availability of resources and the feasibility of the study. Ensuring an adequate sample size was paramount to effectively identifying

significant disparities between the retrospective chart review and the implemented tool while maintaining a practical approach to participant recruiting and retention (OHRP, 2022).

Setting

The DNP project was done in the Gordan Medical Arts outpatient clinic. The clinic primarily emphasizes general medicine and comprises various clinical specializations, encompassing illness prevention, diagnosis, management, and clinical interventional procedures (Psychiatry, n.d.). The clinic also supports the field of psychosomatic medicine, which focuses on the correlation between physical health conditions and the development of psychiatric and emotional disorders during the management and treatment of chronic and acute physical illnesses (Psychiatry, n.d.). Gordan Medical Arts offers a comprehensive range of services catering to individuals across various age groups, including adults, adolescents, and children (Psychiatry, n.d.). The professional team at Gordan Medical Arts comprises a psychiatrist, a family nurse practitioner, and a board-certified psychiatric nurse practitioner. The clinic experiences a daily influx of more than 50-60 people (Psychiatry, n.d.).

Measures

Process measures are utilized to evaluate the extent to which the intervention has been effectively implemented and the degree to which the intended population has received it. As an illustration, the quantifiable metrics encompass the volume of individuals subjected to screening for hyperlipidemia, the number of healthcare professionals training in utilizing the evaluation instrument, and the levels of contentment reported by both patients and providers. Outcome measures refer to the evaluation of the

effects of an intervention on the outcomes experienced by patients. For instance, this DNP project examines the impact of the assessment tool on referral rates inside the primary clinic. It explores potential changes in referral rates, whether they have increased or decreased.

This DNP project examines the impact of utilizing an evaluation tool on referral rates compared to not employing such a tool. The research was conducted within a controlled clinical environment. Task completion was expected within six weeks. The rationale behind this approach is to enhance the rates of referrals to primary clinics and mitigate the potential danger of hyperlipidemia that is commonly linked to the use of antipsychotic drugs (Ono et al., 2018).

The research population encompassed individuals who were prescribed antipsychotic medications at the time of the study. The demographic characteristics contained in the dataset include age, gender, race/ethnicity, diagnosis, and duration of antipsychotic medication use (Ono et al., 2018). In addition, it was imperative to conduct data quality checks at various stages of the study to ascertain the data's accuracy and comprehensiveness. These quality checks involved verifying complete data, validating data ranges to conform to predetermined thresholds, and performing data cleansing to detect and rectify any inaccuracies or discrepancies (Ono et al., 2018).

The acquisition of authorization to utilize any data-gathering instrument and the strict adherence to specific protocols are of utmost importance. The development of the assessment instrument was informed by a comprehensive review of relevant research publications and existing assessments about hyperlipidemia.

Ethical Considerations

Before collecting data or implementing interventions, the DNP project received approval from the Institutional Review Board (Protocol # 23-0572). The Institutional Review Board (IRB) comprehensively evaluated the DNP project. Furthermore, all participants must grant informed consent before participating in the DNP project. Providing comprehensive information to participants regarding the study's objective, potential hazards and advantages, and their entitlement to discontinue participation without facing any adverse consequences (Office for Human Research Protections [OHRP], 2022).

Furthermore, the DNP project prioritized maintaining privacy and security about the information obtained from participants, ensuring that all electronic and physical data storage adheres to relevant rules and regulations (OHRP, 2022). In addition, it was imperative to notify the Institutional Review Board (IRB) of potential conflicts of interest. This encompasses potential conflicts of interest due to funding, affiliations with industry partners, or personal biases held by the research team. The suggested implementation project must adhere to pertinent ethical rules and regulations to safeguard the well-being and entitlements of the human participants engaged. This researcher obtained a letter of support from the Gordan Medical Arts clinic in Clinton, Mississippi (OHRB, 2022).

Project Timeline

During the initial month, the DNP project developed, focused on identifying the research setting or potential collaborators and acquired letters of support. The completion of the submission and recommendation to the Institutional Review Board (IRB) for

review and approval occurred during the second month. During the third month, an intervention plan was developed, along with training materials and strategies for execution. This marks the commencement of data collection and cleansing and formulating a data management plan. During the fourth and fifth months, the data gathering, cleaning, and analysis process continued, employing suitable statistical methodologies. During the six weeks, compiling and organizing the obtained results is recommended to prepare them for publication. Additionally, it is advisable to develop presentations that may effectively disseminate the findings to relevant audiences. During the eighth month, the paper was submitted for publication and presentation at a conference pertinent to the subject matter. It is imperative to acknowledge and address ethical considerations throughout the study (OHRP, 2022). This was achieved by conducting regular Institutional Review Board (IRB) evaluations and implementing suitable protective measures, as OHRP (2022) suggested.

Summary

The anticipated outcomes of the DNP project, which involved the implementation of an assessment tool and its comparison to the absence of such a tool to enhance and augment referral rates to a primary care institution, can be summarized as follows (Kanagasundaram et al., 2021). It is hoped the assessment tool will improve referral rates (Kanagasundaram et al., 2021). This statement is predicated on supposing that the tool was able to identify hyperlipidemia and other concurrent medical conditions in individuals, hence aiding healthcare professionals in formulating judicious selections regarding medication prescriptions (Kanagasundaram et al.,2021). The research is anticipated to enhance healthcare practitioners' understanding of hyperlipidemia and its

association with antipsychotic drugs, increasing awareness in this field. According to Kanagasundaram et al. (2021), implementing this approach can enhance the efficacy of screening, monitoring, and managing hyperlipidemia among individuals receiving antipsychotic treatment (Kanagasundaram et al.,2021). The anticipated results of the proposed research project, which aims to implement an assessment tool compared to the standard of care for enhancing antipsychotic prescribing practices in patients using such medications, are outlined in this project. Additionally, the DNP project evaluated the assessment tool's validity and reliability. This analysis offered valuable perspectives on the efficacy of the instrument and its potential for further implementation. The DNP project prioritized ethical considerations, including acquiring informed consent from participants and preserving their privacy and confidentiality. The primary objective of the proposed DNP project was to employ a screening tool to reduce the prevalence of hyperlipidemia and enhance referral rates to primary care institutions (OHRP, 2022).

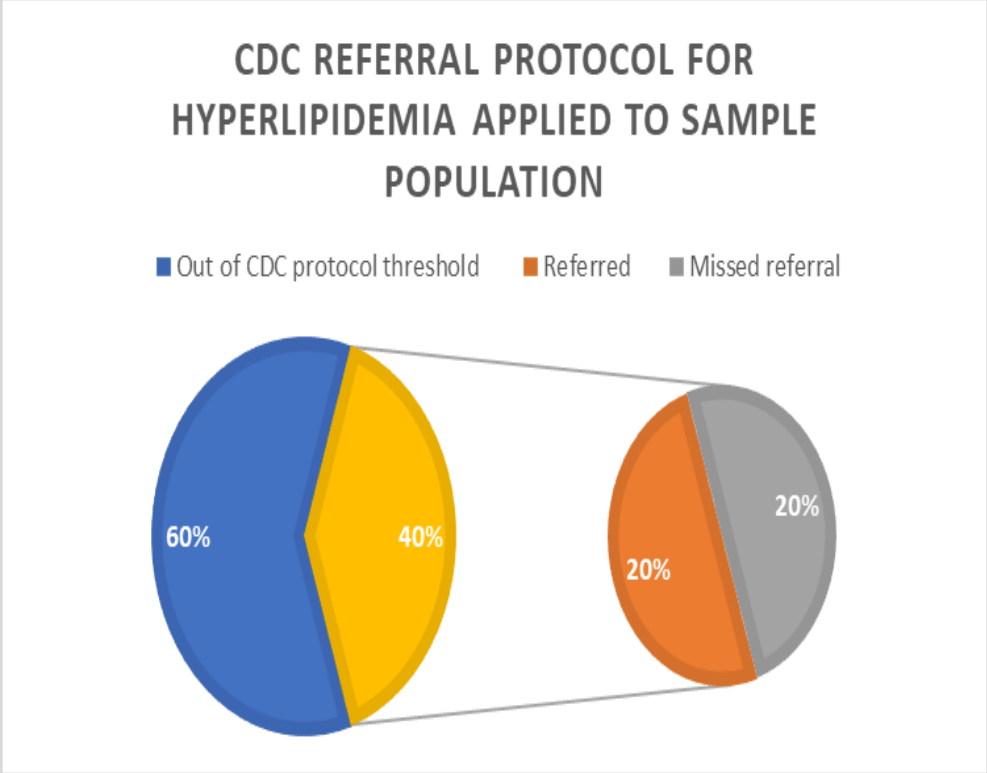
CHAPTER III – RESULTS

Discussion

Data collected for this project was done using random, convenient sampling from patient charts available at the clinic based on research guidelines. The inclusion/ selection criterion includes a total of (x) participants who were recorded for this project. (x)% of the participants were male, and (y) were females. The ages of the participants ranged from (y)years to Z(years).

Table 1

CDC Referral Protocol



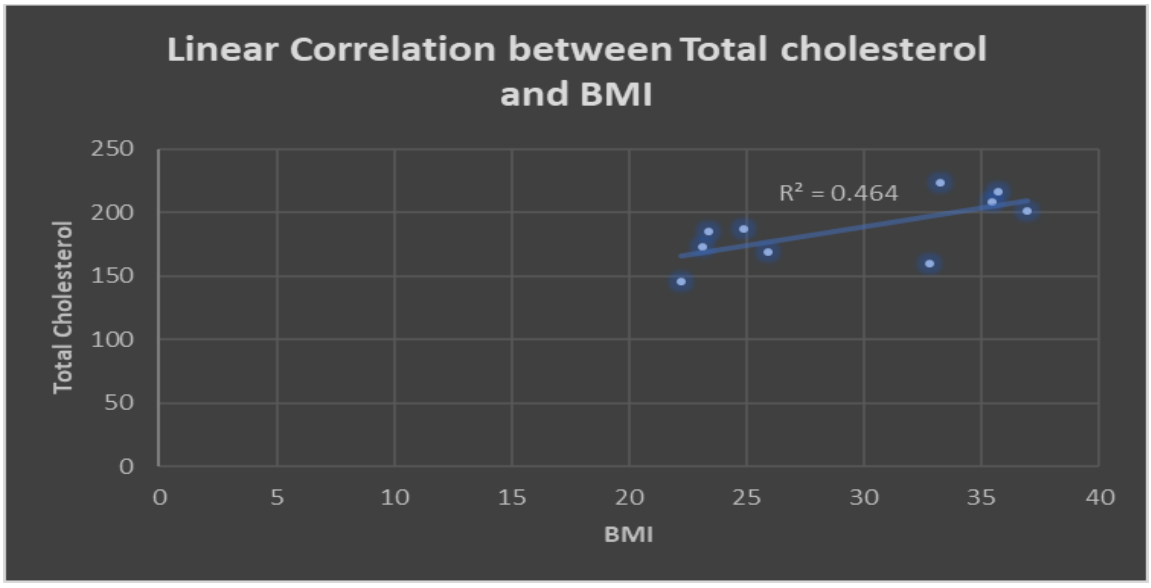
Results of Graph

When looking at the CDC referral protocols, it is noted that 40% of the sample population meets the above-mentioned CDC protocol for hyperlipidemia referrals.

Compared with actual referrals, only 50% of the patients who meet this threshold were referred for evaluation. This means over 20% of the population goes without referrals even though they need to be referred. The tool discussed here will mitigate this discrepancy and decrease the rate of missed referrals. The tool covers all the CDC recommended values to evaluate and contains some physiological measures that complement the protocol and may facilitate early diagnosis. One such measure is the body mass index (BMI). This researcher found a positive correlation when conducting a correlational analysis between Total cholesterol and BMI. As BMI increases, so does LDL, and vice versa. The research showed, with a 95% confidence interval, that an increase in BMI leads to an increase in total cholesterol. The linear regression had a P value of 0.0301, less than 0.05; hence, there is a statistically significant relationship. The regression line shows there is a moderately strong positive relationship (r squared of 0.464) between BMI and total cholesterol.

Table 2

Total Correlation and BMI



Summary

In conclusion, this DNP project collected data from patient charts using random sampling, with 40% of the sample population meeting the CDC hyperlipidemia referral protocol. Over 20% of the population goes without referrals. A tool was developed to address this discrepancy and decrease missed referrals. The tool includes physiological measures like body mass index (BMI) and found a positive correlation between total cholesterol and BMI, with an increase in BMI leading to an increase in total cholesterol. The results suggest a moderately strong positive relationship between BMI and total cholesterol.

CHAPTER IV – CONCLUSION

High blood lipid levels, or hyperlipidemia, are a significant risk factor for the emergence of cardiovascular illnesses (Casey, n.d.). Antipsychotic drug users, especially those between the ages of 20 and 50, are known to have a higher risk of hyperlipidemia. Early identification and referral to primary care are essential to manage this illness effectively. The DNP project aimed to determine whether using an assessment tool to track hyperlipidemia in people on antipsychotic drugs affects how often those people are referred to primary care within three months.

Does using an assessment tool to monitor hyperlipidemia enhance the referral rates to primary care for hyperlipidemia observed within three months, compared to not using an assessment tool, among patients between 20 and 50 taking antipsychotic medications? A retrospective chart review was used in this research to compare patients not using an assessment tool versus those whom a tool was initiated with. Patients for whom the evaluation tool was implemented will make up the first data set, whereas patients for whom the instrument was not deployed will make up the second data group. Information about the diagnosis of hyperlipidemia, rates of referral to primary care, and any changes noticed for three months are among the pertinent data.

The installation of an evaluation tool to track hyperlipidemia in patients between the ages of 20 and 50 taking antipsychotic drugs substantially influenced referral rates to primary care, according to the retrospective record analysis. The Centers for Disease Control and Prevention (CDC) supplied a procedure that was followed in creating the evaluation tool utilized in this research. It has several parts, including calculating lipid ratios, monitoring fasting lipid profiles, and assessing lifestyle change tactics (Centers for

Disease Control [CDC], 2023). The device complies with the CDC protocol since it follows accepted standards for determining the risk of hyperlipidemia and tracking lipid profile weight and BMI. According to the findings, using the evaluation tool to track hyperlipidemia in people using antipsychotic drugs can considerably raise the rate at which patients are referred to primary care. According to the DNP project, including such assessment tools in regular clinical practice for this patient population is crucial (CDC, 2023).

The higher referral rates seen after using the assessment tool have various ramifications and a correlation to BMI and hyperlipidemia among patients taking antipsychotics. Patients diagnosed with hyperlipidemia can benefit from prompt therapies such as lifestyle changes, lipid-lowering drugs, and routine monitoring. As a result, the risk of cardiovascular illnesses is reduced, and general health outcomes are enhanced. Increased referral rates to primary care also make it possible for mental health and primary care providers to work together more effectively (CDC, 2023).

Comprehensive care can be given to patients, improving overall well-being by addressing physical and mental health issues (CDC, 2023). Nevertheless, it is crucial to consider any potential obstacles to using the assessment tool and the subsequent referral procedure. These obstacles could include patient compliance, resource limitations, and limited physician understanding or device awareness.

Targeted education and training for healthcare professionals are necessary to address these issues, as are ensuring enough resources on hand and actively involving and teaching patients about the value of routine primary care visits. As a result of significantly higher referral rates to primary care within three months, the research results

justify using an assessment tool to track hyperlipidemia in patients aged 20 to 50 using antipsychotic medicines. The tool's compliance with the CDC guidelines confirms its suitability and applicability in clinical practice (CDC, 2023). By encouraging early diagnosis and management of hyperlipidemia and lowering the risk of cardiovascular illnesses, using such technologies in routine care can enhance the overall health outcomes of this vulnerable patient population (CDC, 2023).

APPENDIX A – Poster

INCENTIVE: 50 DOLLARS FOR EACH REFERRAL

Studying the Impact of Hyperlipidemia Monitoring Tools on Referral Rates

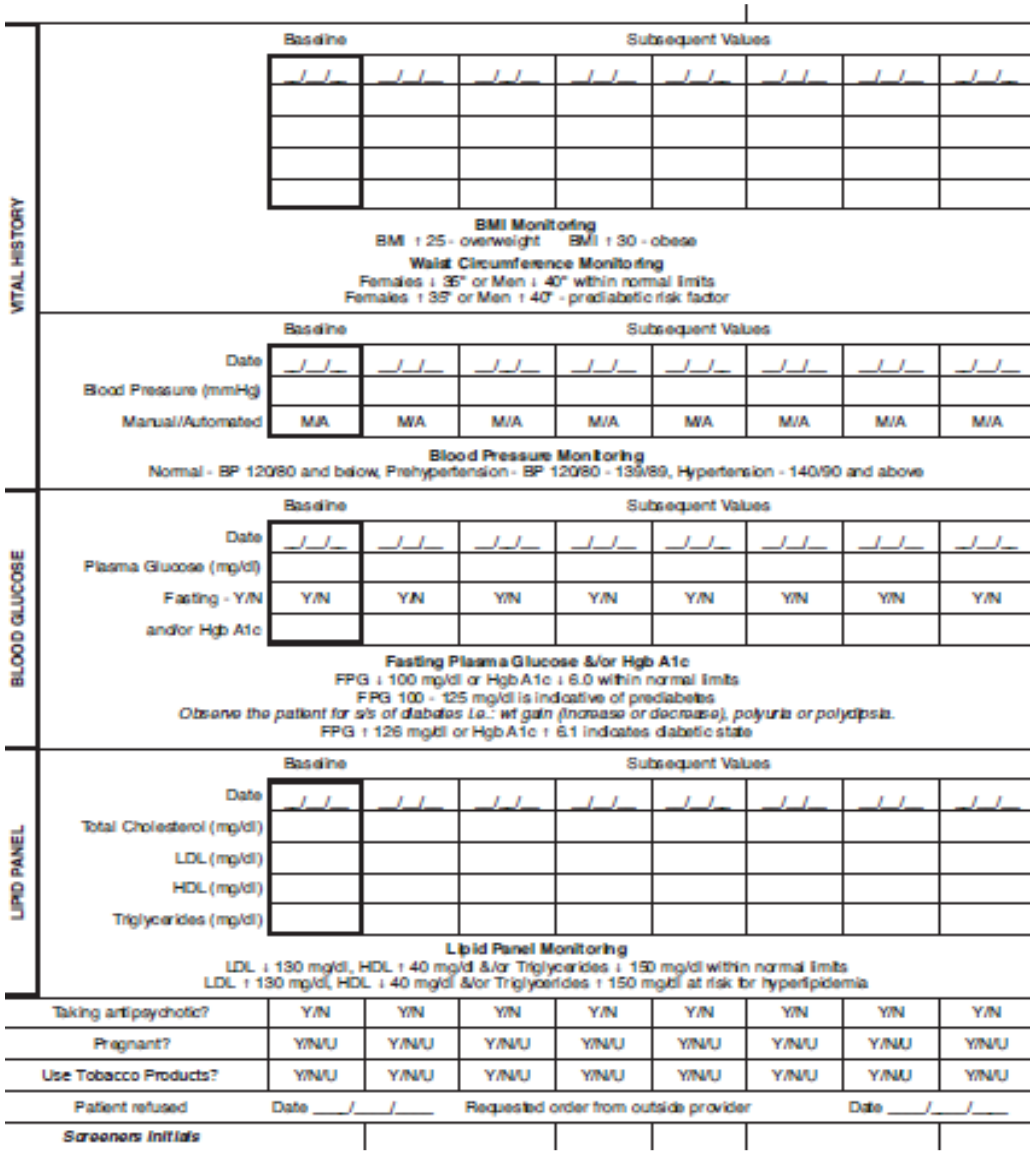
Objective: To evaluate whether using an assessment tool to monitor hyperlipidemia compared to not using a tool in patients aged 20-50 who are taking antipsychotic medication can increase referral rates to primary care clinics for hyperlipidemia.

THE STUDY'S FINDINGS WILL PROVIDE VALUABLE INSIGHTS INTO THE EFFECTIVENESS OF HYPERLIPIDEMIA MONITORING TOOLS AND INFORM CLINICAL PROTOCOLS FOR MENTAL HEALTH CLINICIANS. THIS COMPREHENSIVE APPROACH WILL ULTIMATELY IMPROVE THE QUALITY OF PATIENT CARE AND LEAD TO BETTER HEALTH OUTCOMES FOR PATIENTS WITH MENTAL ILLNESS.

Join us in this research project and improve the quality of mental health care by contributing to our study's outcomes.

APPENDIX B – Metabolic Screening Tool

State of Missouri Department of Mental Health



	Baseline	Subsequent Values						
VITAL HISTORY								
	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__

BMI Monitoring
BMI ↑ 25 - overweight BMI ↑ 30 - obese

Waist Circumference Monitoring
Females ↓ 35" or Men ↓ 40" within normal limits
Females ↑ 35" or Men ↑ 40" - prediabetic risk factor

	Baseline	Subsequent Values						
Date	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__
Blood Pressure (mmHg)								
Manual/Automated	M/A	M/A	M/A	M/A	M/A	M/A	M/A	M/A

Blood Pressure Monitoring
Normal - BP 120/80 and below, Prehypertension - BP 120/80 - 139/89, Hypertension - 140/90 and above

	Baseline	Subsequent Values						
BLOOD GLUCOSE								
Date	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__
Plasma Glucose (mg/dl)								
Fasting - Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
and/or Hgb A1c								

Fasting Plasma Glucose &/or Hgb A1c
FPG ↓ 100 mg/dl or Hgb A1c ↓ 6.0 within normal limits
FPG 100 - 125 mg/dl is indicative of prediabetes
Observe the patient for s/s of diabetes i.e.: wt gain (increase or decrease), polyuria or polydipsia.
FPG ↑ 126 mg/dl or Hgb A1c ↑ 6.1 indicates diabetic state

	Baseline	Subsequent Values						
LIPID PANEL								
Date	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__
Total Cholesterol (mg/dl)								
LDL (mg/dl)								
HDL (mg/dl)								
Triglycerides (mg/dl)								

Lipid Panel Monitoring
LDL ↓ 130 mg/dl, HDL ↑ 40 mg/dl &/or Triglycerides ↓ 150 mg/dl within normal limits
LDL ↑ 130 mg/dl, HDL ↓ 40 mg/dl &/or Triglycerides ↑ 150 mg/dl at risk for hyperlipidemia

Taking antipsychotic?	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Pregnant?	Y/N/U	Y/N/U	Y/N/U	Y/N/U	Y/N/U	Y/N/U	Y/N/U	Y/N/U
Use Tobacco Products?	Y/N/U	Y/N/U	Y/N/U	Y/N/U	Y/N/U	Y/N/U	Y/N/U	Y/N/U
Patient refused	Date ____/____/____		Requested order from outside provider				Date ____/____/____	
Screeners Initials								

APPENDIX C – Data Sheet

Demographics /Age,	**Medical Hx/ Meds**	**Labs**	**Referrals to Primary Care**

Source: Fictitious data, for illustration purposes only

APPENDIX D – Letter of Support

Gordan Medical Arts

Date 5/11/2023

RE: Letter of Support for Jasmyn S. Allen

Attn: Facility Nursing Research Council Application Process-DNP BSN-DNP Student

To: Nursing Research Council Chair and Committee

This letter is about Jasmyn S. Allen who is applying to the Gordan Medical Arts for application and approval of her Clinical Doctoral Project. The focus and title of her evidenced-based project is (P) In patients between the ages of 20 and 50, who are taking antipsychotic medications, (l) does implementing an assessment tool to monitor hyperlipidemia (C) compared to not using an assessment tool (O) increase the referral rates to primary care for hyperlipidemia (T) observed within three months? The site is in a behavioral health clinic.

> I have discussed this topic with Jasmyn S. Allen and support and recommend the need for these implementations of hyperlipidemia education and observation of referral rates in a primary care facility. I understand that this (education and implementation of an assessment tool to monitor hyperlipidemia and its impact on referral rates would be done within 90 days. After data analysis, I understand that Jasmyn S. Allen will present her findings to the ID team.

I understand that following approval by the Nursing Research Council, she will seek approval from The University of Southern Mississippi Institutional Review Board (IRB) for final approval of her Clinical Doctoral Project proposal. I understand that Jasmyn S. Allen is a full-time BSN-DNP (Psychiatric Nurse Practitioner) student in the Doctor of Nursing Practice Program at the University of Southern Mississippi, Hattiesburg campus.

I am the director of Gordan Family Arts. I am offering this letter of support to the doctoral student, Jasmyn S. Allen, in her doctoral project as titled above, and look forward to hearing her findings. I understand that participation by the ID team members is entirely anonymous and voluntary. There is no compensation for their participation. I understand the planned dates are 90 days from the USM IRB approval being received. I understand that a letter of support will be included in the University of Southern Mississippi Institutional Review Board (IRB) application.

Her chair contact information is Dr. Carolyn Coleman, her office number is 601-2665869, and her email is carolyn.coleman@usm.edu

As Director/Chief of Gordan Family Arts at this proposed site, I would like to further support Jasmyn S. Allen's academic endeavor in this clinical practice project 1 look forward to hearing the results of this study and the implications on clinical practice If you need any other *information, please do not hesitate* to contact sincerely,

APPENDIX E – IRB Approval Letter

Office of
Research Integrity

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

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NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

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

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI using the Incident form available in InfoEd.
- The period of approval is twelve months. If a project will exceed twelve months, a request should be submitted to ORI using the Renewal form available in InfoEd prior to the expiration date.

PROTOCOL NUMBER:	23-0572
PROJECT TITLE:	Studying the Impact of Hyperlipidemia Monitoring Tools on Referral Rates, in Patients taking Antipsychotics.
SCHOOL/PROGRAM	School of Leadership & Advance Nursing Practice
RESEARCHERS:	PI: Jasmyn Allen Investigators: Allen, Jasmyn~Coleman, Carolyn~
IRB COMMITTEE ACTION:	Approved
CATEGORY:	Expedited Category
PERIOD OF APPROVAL:	26-Jun-2023 to 25-Jun-2024

Donald Sacco, Ph.D.
Institutional Review Board Chairperson

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