

2021

## Increasing Provider Awareness About the Use of CBT in Treating Insomnia in Adults

Ayorinde Oluwagbemiga Oyeneyin  
*Walden University*

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>



Part of the [Nursing Commons](#)

---

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact [ScholarWorks@waldenu.edu](mailto:ScholarWorks@waldenu.edu).

Walden University

College of Nursing

This is to certify that the doctoral study by

Ayorinde Oyeneyin

has been found to be complete and satisfactory in all respects,  
and that any and all revisions required by  
the review committee have been made.

Review Committee

Dr. Melissa Rouse, Committee Chairperson, Nursing Faculty

Dr. Margaret Harvey, Committee Member, Nursing Faculty

Dr. Jonas Nguh, University Reviewer, Nursing Faculty

Chief Academic Officer and Provost

Sue Subocz, Ph.D.

Walden University

2021

Abstract

Increasing Provider Awareness About the Use of CBT in Treating Insomnia in Adults

by

Oyeneyin Ayorinde

MS, Walden University, 2019

BS, Coppin State University, 2014

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

August 2021

## Abstract

This doctoral project addressed the issue of prescribing cognitive behavioral therapy (CBT) as the first-line treatment for insomnia. Despite being less efficacious, medications are the most preferred form of treatment for insomnia among most psychiatric clinicians. Providers at the clinical site where the project took place were foregoing CBT in preference to medications. Providers preferred the pharmacotherapeutic approach due to its ease of prescription compared to the psychotherapeutic intervention. An educational program was provided for the providers regarding the advantages of prescribing CBT over medications, for treatment of insomnia. The program was in the form of a PowerPoint presentation, which lasted for 40 minutes, two psychiatrists and three nursing practitioners participated in the program. The project also included a pre and post survey of provider knowledge about the significance of CBT for insomnia, and their willingness to adopt the intervention as the first-line treatment for insomnia, particularly in adults. The outcome of the surveys indicated that the care providers were willing to adopt CBT as the first-line treatment for insomnia among adults, following the provision of the education program. This is because the participants mean scores were significantly higher in post intervention survey compared to the preintervention survey. The doctoral project will result in positive social change, since it will lead to enhanced mental health among the patient population, particularly among individuals with insomnia comorbid with various psychiatric disorders.

Increasing Provider Awareness About the Use of CBT in Treating Insomnia in Adults

by

Oyeneyin Ayorinde

MS, Walden University, 2019

BS, Coppin State University, 2014

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

Walden University

August 2021

## Dedication

I would like to dedicate this project to my beautiful wife Olamide, my mother Iyabode, and kids Tobi, Timi, Tommy and Toni, who have been a paramount of support and inspiration. Their self-less sacrifice and patience in the course of my journey has being immeasurable.

I would also like to dedicate this project to Almighty God, for the inspiration and guidance in the course of my journey.

## Acknowledgments

I would like to express my profound gratitude to Dr. Melissa Rouse for her support and guidance as I developed my project. Your support was immense and your contributions and feedback gave me confidence.

I would also like to thank Dr. Margaret Harvey for her kind words, support and guidance in the course of my project.

## Table of Contents

Section 1: Nature of the Project .....	1
Introduction .....	1
Problem Statement .....	2
Purpose .....	4
Practice Focused Question .....	5
Nature of the Doctoral Project .....	5
Significance .....	6
Summary .....	7
Section 2: Background and Context .....	8
Introduction .....	8
Concepts, Models, and Theories .....	9
Johns Hopkins Nursing Evidence-Based Practice Model .....	9
Spielman's 3P Model of Insomnia .....	14
Relevance to Nursing Practice .....	17
Local Background and Context .....	22
Role of the DNP Student .....	28
Summary .....	31
Section 3: Collection and Analysis of Evidence .....	33
Introduction .....	33
Practice-Focused Question .....	34
Sources of Evidence .....	35



Evidence Generated for the Doctoral Project.....	36
Analysis and Synthesis.....	41
Procedure.....	41
Protection.....	43
Summary.....	44
Section 4: Findings and Recommendations.....	44
Introduction.....	44
Sources of Evidence.....	45
Findings and Implications.....	46
Outcomes From the Preintervention Survey.....	46
Outcomes from the Postintervention Survey.....	47
Limitations and their Potential Implications on the Findings.....	50
Implications of the Findings on Individuals.....	51
Implications of the Findings on the Community.....	52
Implications of the Findings on Healthcare Organizations.....	54
Potential Implications for Positive Social Change.....	54
Recommendations.....	55
Recommended Practice Guidelines/Protocols.....	55
Recommended Organizational Policies.....	58
Strength and Limitations of the Project.....	59

Section 5: Dissemination Plan .....	61
Dissemination to the Psychiatric Clinic.....	61
Dissemination to the Broader Nursing Profession .....	62
Analysis of Self.....	64
As a Practitioner .....	64
As a Scholar.....	64
As a Project Manager .....	65
Challenges, Solutions, and Insights Gained on The Scholarly Journey .....	66
Summary .....	67
References.....	69
Appendix A: Pretest Survey.....	76
Appendix B: Posttest Survey .....	79
Appendix C: Provider Education PowerPoint Presentation.....	82
Appendix D: Tables .....	88

## List of Figures

Figure 1. An Illustration Summari .....	10
Figure 2. An Illustration of The Change Process Based on Lewin's Change Theory.....	14
Figure 3. Graphical Illustration of Spielman's 3P Model of Insomnia .....	16
Figure 4. Graphical Representation of The Mean Scores of The Participants' Responses During the Pre/Postintervention Surveys.....	50
Figure 5. A Chart Indicating the Participants' Willingness to Prescribe CBT For Insomnia Before and After the Education Program.....	50

## Section 1: Nature of the Project

### **Introduction**

Insomnia is a sleep disorder that affects one's capability to fall or stay asleep. The disorder can be acute or chronic. In critical scenarios, it lasts from one night to a few weeks, while in chronic cases, it manifests about three nights a week for at least three months (Meyer et al., 2018). The condition has a significant prevalence in the United States. Each year, 1 in 4 Americans develop insomnia, with 75% being acute. In contrast, 25% of cases are chronic ([Centers for Disease Control and Prevention] CDC, 2019). The condition presents a significant public health challenge due to a higher risk of auto accidents and excessive daytime sleepiness. Likewise, it affects a person's general mental and physical wellness since it causes anxiety, irritability, mood changes, and fatigue. Furthermore, it can have a role in developing chronic illnesses such as depression, cardiovascular disease, diabetes, and obesity (Cunnington et al., 2013). Insomnia primarily manifests in patients with psychiatric conditions, with depression and various anxiety disorders being attributed to 40% of chronic insomnia cases (Khurshid, 2018). Multiple studies have depicted that psychiatric disorders and sleep-related complaints are comorbid conditions since 62% of patients with chronic insomnia also manifest abnormal behaviors, experiences, and cognitions (Khurshid, 2018). Apart from mental disorders, pain is another major factor attributed to the condition. Other causes of insomnia, particularly acute cases, include lifestyle dynamics, medication types, caffeine, alcohol, and physical illnesses.

Based on the cited studies and the existing data, insomnia is a significant public health challenge in the United States. The significance necessitates further review to develop more productive strategies to manage the condition in clinical settings. As much as the existing evidence depicts that cognitive behavioral therapy (CBT) is more efficacious in treating insomnia, most outpatient psychiatric clinics prefer to use hypnotics to manage the disorder (Mitchell et al., 2015). Hence, this initiative focused on providing awareness to care providers about the importance and effectiveness of CBT as the first line intervention against insomnia when treating outpatients.

### **Problem Statement**

The prevalence rate of insomnia in the U.S. is 35%. It can exist as a primary disorder and it can manifest as a comorbid condition of other disorders such as chronic anxiety and depression (Mitchell et al., 2015). Historically, the illness was perceived as a symptom of the cited conditions, meaning that there was an assumption that insomnia would be resolved whenever the "primary" conditions were treated (Park et al., 2018). However, the present literature depicts that the resolution of insomnia requires targeted treatment since it often persists even after treating its "primary" conditions (Park et al., 2018). The disorder is independently attributed to significant morbidity in terms of: the enhanced likelihood of new-onset psychiatric condition, reduced quality of life, difficulties in interpersonal relationships, irritability, impaired memory and concentration, and fatigue (Park et al., 2018). There is evidence to demonstrate that it also confers the risk of acquiring chronic illnesses such as diabetes, heart disease, and hypertension.

Unfortunately, despite insomnia having severe outcomes on the U.S. population, its present primary treatment mode has limited effectiveness. The most common treatment intervention is medication. Drugs, particularly benzodiazepine receptor agonists, are preferred due to their widespread availability, ease of prescription, and sufficient efficacy as deduced from numerous clinical trials, primarily due to their capability to rapidly improve a patient's condition after medication (Mitchell et al., 2015). However, despite hypnotics being productive in managing insomnia symptoms, they are characterized by significant side effects. Such effects include the enhanced likelihood of falls, confusion, sedation, which causes machine-related accidents, cognitive impairment, and impaired motor coordination (Park et al., 2018). Medications can result in dependence and tolerance since they are not curative, which can result in long-term treatment for years, despite the absence of sufficient efficacy and safety data regarding the use of hypnotics beyond 1 to 2 years (Park et al., 2018). Therefore, the existing evidence discourages the use of medications as the first-line treatment for insomnia.

CBT is an alternative treatment for insomnia. It is recommended as the first-line treatment for the disorder (Mitchell et al., 2015). CBT comprises several strategies that target the various factors attributed to the persistence of insomnia. The targeted factors include sleep-interfering behaviors, sleep-related anxiety, and dysregulation of sleep drive (Mitchell et al., 2015). When CBT is used, these factors are altered by creating a learned association between the bed and sleeping through cognitive restructuring, which leads to an alteration of sleep-related thoughts. In addition, CBT applies sleep restriction, which restores homeostatic sleep regulation (Mitchell et al., 2015). The intervention is

highly efficacious since it modifies various behaviors and thought patterns that reinforce poor sleep, without the likelihood of unintended consequences such as dependence or significant side effects which can occur when medications are used (Mitchell et al., 2015). Despite numerous trials demonstrating that CBT is highly effective in managing insomnia, especially in the long-term, only a few psychiatric facilities have adopted the treatment. The therapy is unpopular mostly related to the fact that it takes time to see results from CBT (Park et al., 2018). For instance, patients might not want to visit a facility every week to receive CBT. Another barrier against its widespread adoption is that the administration of CBT in the context of patients with insomnia requires more specialization than when applied to treat other forms of psychiatric disorders (Park et al., 2018). Thus, awareness needs to be created among providers to effectively adopt CBT as the primary intervention for insomnia so the disorder's burden among the American population can be significantly reduced.

### **Purpose**

As much as CBT is more efficacious in treating insomnia than medications, most psychiatric care providers prefer the latter (Perlis et al., 2018). The continued preference for pharmacological therapies can be attributed to the fact that most practitioners lack awareness about the benefits of utilizing CBT as the first-line treatment for insomnia (Perlis et al., 2018). Therefore, this education project intended to bridge the existing practice gap by educating providers about the advantages of prescribing CBT when treating insomnia. One of the primary benefits is that the intervention addresses the underlying causes of insomnia instead of just relieving their symptoms, as is the case

when prescribing sleeping pills (Perlis et al., 2018). This makes CBT highly effective in the long-term. For instance, by using CBT, a patient is trained to identify, control, and eliminate the negative thoughts or stressors that could be keeping them awake (Perlis et al., 2018). Other benefits are that CBT does not lead to dependence, tolerance, or significant side effects (Perlis et al., 2018). The cited benefits can be attained by prescribing any of the following CBT-related approaches to a patient, depending on the context; stimulus control therapy, relaxation training, sleep restriction, and stimulus control.

### **Practice Focused Question**

The practice focused question for this DNP staff education project was: Does creating awareness through education, increase the providers' knowledge about CBT in managing insomnia and their intent to recommend this treatment for their patients?

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

This DNP project relied on evidence-based studies as the primary sources of evidence. These studies were obtained from Science Direct, EBSCO, PubMed, Cochrane, Medline, and Cochrane database of systematic reviews. The obtained studies were conducted within five years. The key search terms were "CBT for managing chronic insomnia in adults," "Strategies for treating chronic insomnia in adults," "Chronic Insomnia in adults," "CBT versus Medications in treating adults with chronic insomnia." The evidence was filtered based on the following levels: meta-analyses studies, systematic reviews, randomized control trials, cohort studies, and case-control studies.



The literature established the importance of provider education on utilizing CBT when treating insomnia.

### **Significance**

This project had a significant positive impact on stakeholders related to healthcare delivery. For instance, care providers, after attending the education became more competent in treating insomnia. The enhanced competence would reflect on the health outcomes of their respective patients who experience insomnia. CBT would help them avoid behaviors that lead to sleep deprivation; thus, developing healthy sleeping habits. The treatment acts as a long-term solution and is not associated with the likelihood of dependence or significant side effects as compared to sleep-inducing medications (Taddei-Allen, 2020). Furthermore, CBT is relatively easy to administer since it requires 6 to 8 sessions on average, depending on the severity of the patient's condition (Taddei-Allen, 2020). These sessions entail psychoeducational, behavioral, and cognitive interventions (Taddei-Allen, 2020). Eighty percent of patients who complete the sessions usually report benefits such as more time spent asleep and less time taken before falling asleep (Taddei-Allen, 2020). Therefore, the intervention can be classified as highly effective.

The benefits of effectively treating and preventing insomnia among the target population are significant. Medically, treating this condition helps to manage the prevalence of comorbid psychiatric illnesses, particularly depression and anxiety disorders. Furthermore, it can diminish the likelihood of acquiring various resultant chronic diseases, including diabetes, heart disease, and hypertension (Krystal et al.,

2019). Socially, effective treatment of insomnia can result in improved quality of life and decreased risk of falls and hip fractures, which leads to reduced healthcare utilization (Krystal et al., 2019). Also, through the treatment, symptoms such as fatigue, irritability alongside memory and concentration challenges are eliminated; hence, leading to improved productivity and reduced likelihood of traffic and machine-related accidents (Krystal et al., 2019). By managing symptoms like irritability and stress, the quality of an individual's social interactions is improved. According to the American Academy of Sleep Medicine (AASM), by effectively intervening to treat insomnia, the present healthcare cost burden of \$100 billion annually on the U.S. medical system will be significantly reduced (Taddei-Allen, 2020). Therefore, this project had a fundamental relevance in terms of clinical practice, patient outcomes, and socioeconomic benefits among the providers and the target population.

### **Summary**

In this section, one can deduce that insomnia is a significantly prevalent disorder in the United States, whose current mode of treatment is not highly effective. Thus, necessitating the adoption of CBT as the first-line treatment for the disorder, since it is a better treatment option than prescribing medication. The next chapter elaborated on the theories, models, and concepts upon which the project was founded. Section 2 demonstrated the relevance of this study to nursing practice and contextualized the problem as it manifests in the targeted health-providing institution and the target population

## Section 2: Background and Context

### **Introduction**

Insomnia is a significant public health challenge in the United States. Annually, at least 1 in 4 individuals experiences the disorder, and 25% of these cases are chronic (CDC, 2019). The disorder is attributed to adverse health outcomes, especially considering that it increases one's vulnerability to various chronic diseases such as depression and diabetes. It is also associated with socioeconomic challenges like absenteeism, reduced productivity, and increased treatment costs (Meyer et al., 2018). The challenges attributed to insomnia are magnified by the fact that its present first-line treatment, which is to prescribe medication, has limited efficacy. Pharmacotherapy rarely results in full remission of insomnia (Mitchell et al., 2015). Furthermore, the medications often used to treat the disorder are characterized by risks of tolerance, dependence, and sedation. Healthcare providers are urged to adopt CBT as the first-line intervention due to its high effectiveness, especially in the long-term since it can permanently alter the thoughts and behaviors attributed to disruptive sleep patterns. It is not characterized by the risk of any significant side effects, dependence, or tolerance.

Unfortunately, CBT is rarely applied in outpatient psychiatric facilities despite its real benefits since the care providers have limited knowledge about its efficacy. Many providers perceive medications to be easier to administer, despite having adverse side effects. Therefore, this study intended to assess how provider education about the benefits of administering CBT when treating insomnia can improve knowledge and increase provider intent to recommend CBT, instead of prescribing medication thus resulting in

improved health outcomes among the target population. The project was founded on the following practice focused question: Does creating awareness through education, increase the providers' knowledge about CBT in managing insomnia and their intent to recommend this treatment for their patients? This section addressed issues related to the theories, concepts, and models upon which the project was founded. It also addressed the relevance of the study to the nursing practice, the local background and context upon which the project was premised. The DNP student role was also addressed.

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

#### **Johns Hopkins Nursing Evidence-Based Practice Model**

The evaluation of the practice focused question was based upon the Johns Hopkins Nursing Evidence-Based Practice Model. The model is a crucial problem-solving strategy for clinical decision-making. Its purpose is to safeguard that best practices and most recent research findings are quickly and effectively adopted in patient care. This adoption is undertaken in three major steps: practice question, evidence, and translation (Crawford, 2015). Based on the model, the project was undertaken in the following phases.

#### ***Phase 1: The Practice Question was Formulated***

1. The healthcare delivery system was assessed to identify a relevant challenge in patient care.
2. The practice question was developed and refined.
3. The scope of the practice issue was defined as well as the relevant stakeholders

4. A schedule of activities for the entire evaluation was created

***Phase 2: The Evidence was Reviewed***

1. An external and internal search for evidence was undertaken
2. The quality and level of each piece of evidence was appraised
3. The individual evidence was summarized
4. The overall quality and strength of evidence was synthesized
5. The recommendations for change in practice based on the deduced evidence were formulated.

***Phase 3: Translation***

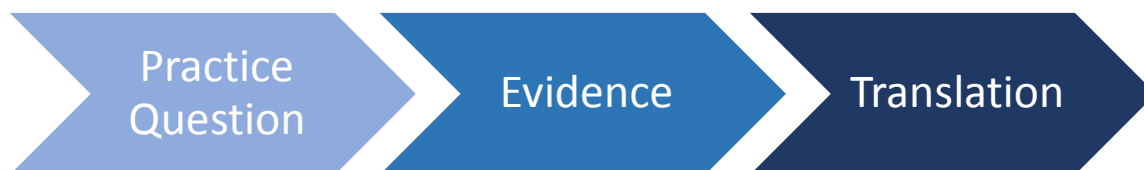
1. The appropriateness and feasibility of the recommendations in the context of the targeted practice area was determined
2. An action plan was generated
3. Resources and support to actualize the plan was secured
4. The plan was implemented
5. The outcomes were evaluated

The findings were disseminated to the relevant stakeholders

**Figure 1**

*An Illustration Summarizing How Change in Practice Would Be Initiated Based on Johns Hopkins Nursing Evidence-Based Practice Model*

***Lewin's Change Theory***



The change theory was utilized to initiate change in practice among the targeted psychiatric care providers. Lewin theorized a three-phase change model regarded as the unfreeze-change-refreeze model that necessitates previous learning to be disregarded and replaced (Petiprin, 2019). The theory has three primary concepts which are driving forces, restraining forces, and equilibrium (Petiprin, 2019). However, these forces are generally countered by restraining forces. They act as barriers to change since they manifest in the opposite direction (Petiprin, 2019). A state of equilibrium is a scenario where both the restraining and driving forces are equal, meaning that change fails to happen. The equilibrium can be lowered or raised by increasing the difference between the restraining and driving forces (Petiprin, 2019). Unfreezing assists in changing the equilibrium by coming up with strategies that enable individuals to abandon their traditional or usual patterns that are counterproductive. Hence, it is essential to overcome the constraints of group conformity and individual resistance (Petiprin, 2019). Fortunately, unfreezing can be attained using several strategies. To start with, one can direct behavior away from traditional practice by increasing the driving forces that trigger

change. Likewise, one can reduce the restraining forces that could be impeding movement towards the desired practice. Another strategy is to combine the first two approaches. After altering the equilibrium, at the freezing phase, the next phase is regarded as the change stage, which involves the change of behaviors, feelings, and thoughts in order to adopt or accommodate a practice or an approach that is more productive and liberating (Wojciechowski et al., 2016). Lastly, the refreezing phase entails the reinforcement of the new approach so that it can be mastered as the standard procedure of operation or practice. This phase is crucial since it prevents an individual from readopting the old strategies.

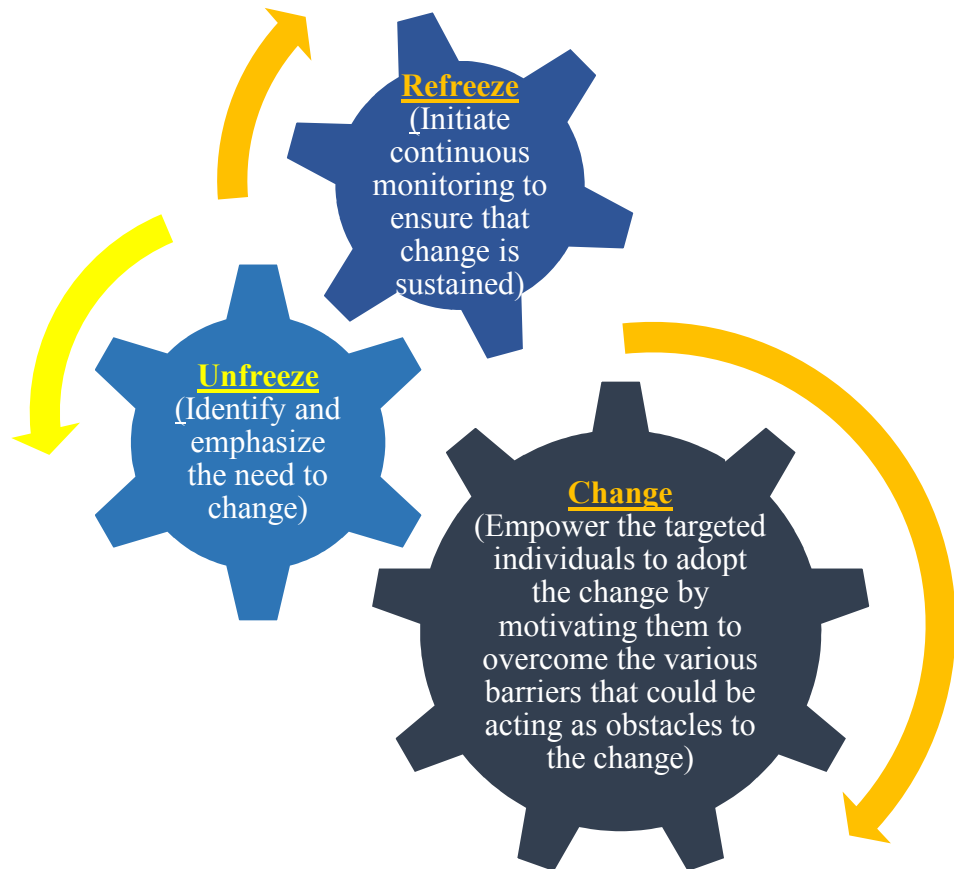
From the above description, one can deduce that Lewin's change theory can be regarded as an elaborate platform or framework upon which to base the attainment of new approaches in clinical practice. The theory enables an individual to identify the various obstacles that could be impeding a new guideline; thus, facilitating enactment of effective strategies to overcome the barriers (Hussain et al., 2018). Regarding psychiatric practice, one of the main obstacles that impede practitioners from prescribing CBT when treating insomnia is that they perceive medications as easier to administer. Hence, this aspect of conformity, familiarity, and resistance can be overcome by enlightening them about the numerous benefits associated with CBT in relation to enhancing patients' outcomes. The driving force pertaining to their desire to optimize their clients' outcomes would then overcome their thought patterns related to the status quo. Furthermore, another advantage of basing the practice change on Lewin's theory is that it ensures practitioners do not readopt the old guidelines by ensuring that the new ones are

continuously reinforced until mastery is attained. Hence, safeguarding that a certain approach is fully adopted as the standard procedure of practice. In this project, the practitioners were assessed after the education was provided, to evaluate their willingness to recommend the therapy, and based on the outcomes of the assessment, the need to provide them with more awareness was determined.



**Figure 2**

*An Illustration of The Change Process Based on Lewin's Change Theory*



### **Spielman's 3P Model of Insomnia**

This model is also referred to as the behavioral model or the three-factor model. The model explains how insomnia manifests acutely and how acute insomnia becomes chronic. Spielman's 3P framework also describes 3 types of factors that are usually involved in the course of insomnia. The predisposing factors include the biological and psychological traits that raise one's vulnerability to sleep disorders. Such factors include hyperarousal, anxiety, and female gender (Buysse et al., 2011). The traits do not directly

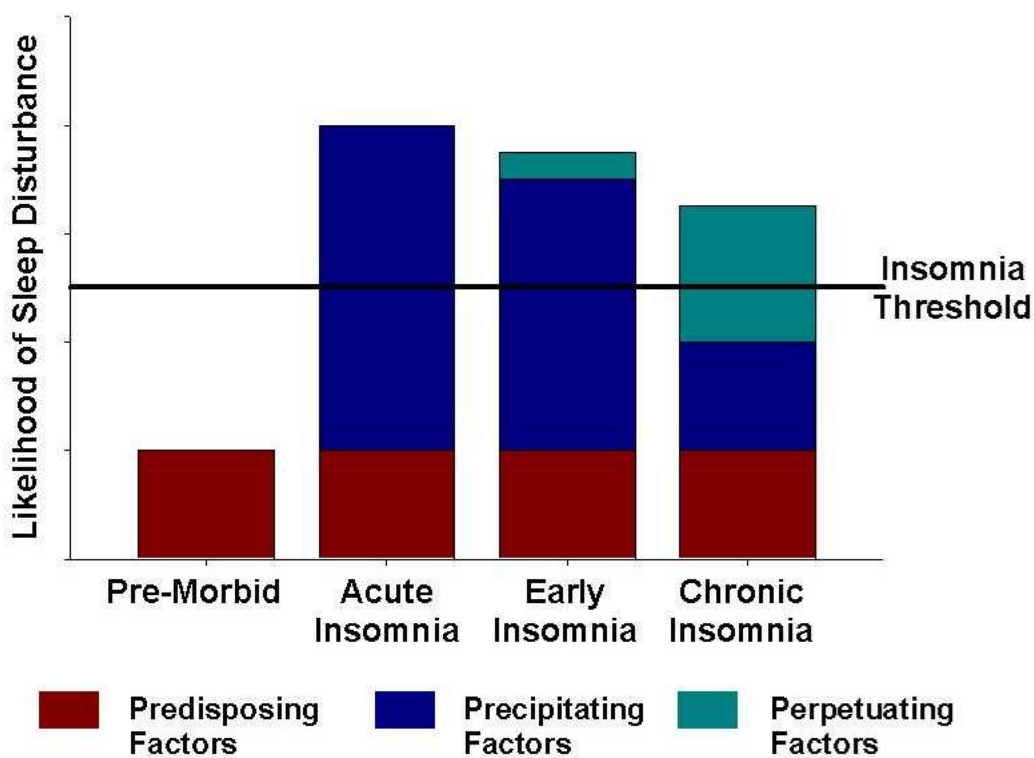
result in insomnia but increase one's risk of developing the disorder. Also, precipitating factors are various psychological, environmental, and medical factors that increase vulnerability and trigger the disorder. They include occupational or familial stress, medication, illness, death of a loved one, or divorce (Buysse et al., 2011). In most cases, these factors trigger the acute phase of insomnia. The perpetuating elements consist of the physiological, environmental, psychological, and behavioral dynamics that impede an individual from regaining a normal sleep behavior. They include thoughts like fear of sleeplessness and worries regarding the daytime consequences (Buysse et al., 2011). Other factors that prevent sleep include actions such as too much bed rest and taking naps. Unfortunately, as much as these thoughts and behaviors manifest as individuals attempt to cope with sleeplessness, they usually perpetuate insomnia into a chronic level.

Therefore, this model demonstrates that individuals have a significant vulnerability to insomnia due to various predisposing factors such as gender. Hence, there is a likelihood that exposure to precipitating factors such as some medications, illness, and stress, can trigger the manifestation of acute insomnia. Fortunately, in most cases, when precipitating dynamics are modified or eliminated, most individuals return to standard sleep patterns. However, there are individuals in which the sleep challenges persist even after the precipitating events are managed. Chronic insomnia often causes emergence of behavioral and psychological factors such as stress and worry that perpetuate the disorder. This means that for chronic insomnia to be effectively managed, the care provider should target and intervene on the perpetuating factors. Based on the model, CBT is the ideal treatment for insomnia since it entails targeted therapy and alters

dysfunctional sleep cognitions such as attributions, expectations, and beliefs, as well as maladaptive cognitive processes like worrying and excessive self-monitoring (Buysse et al., 2011). Therefore, CBT for insomnia is effective in reducing distress, improving coping, and facilitating sleep. Hence, this model was utilized in this doctoral education project to create providers' awareness regarding the benefits of adopting CBT as the first-line treatment for insomnia.

**Figure 3**

*Graphical Illustration of Spielman's 3P Model of Insomnia*



Source; <https://www.med.upenn.edu/cbti/assets/user-content/documents/ppsmmodelsofinsomnia20115theditionproof.pdf>

### **Relevance to Nursing Practice**

This doctoral project is relevant to nursing practice based on the fact that the issue relating to inadequate utilization of CBT as the primary treatment for insomnia in psychiatric units has been studied by several scholars before, which means that it's a topical issue. For instance, in 2018, a study published in the Journal of General Internal Medicine appreciated the fact that CBT is rarely administered by psychiatric care providers, despite being identified by The American College of Physicians (ACP) as the first-line intervention for insomnia in adults (Koffel et al., 2018). The study states that as much as CBT significantly improves sleep outcomes and is not characterized by severe side effects and dependence, like treatment with medications like hypnotics, patients are rarely prescribed this therapy (Koffel et al., 2018). The scholars attributed the existing gap between guideline recommendations and practice to various barriers that characterize the administration of CBT and the absence of awareness amongst providers regarding its clinical benefits (Koffel et al., 2018). One of the main factors impeding CBT's provision to patients with insomnia is that most mental health nurses, psychiatrists, and psychologists reserve the therapy for other psychiatric disorders such as posttraumatic stress disorder (PTSD) and anxiety disorders (Koffel et al., 2018). Providers typically reserve CBT for other mental health conditions and do not realize the value it can have in treating insomnia.

The topic has been addressed by other scholars who were researching the "clinician barriers" that results in the underutilization of CBT treatment. According to the researchers, these provider barriers include lack of motivation, treatment beliefs, and lack

of knowledge (Koffel & Hagedorn, 2020). The cited barriers lead to a scenario where psychiatric care providers have continued to ignore ACP guidelines, that recommend CBT as the first-line treatment for insomnia. Practitioners instead utilize other less efficacious therapies, particularly sleep hygiene and hypnotic medications (Koffel & Hagedorn, 2020). Practitioners have continued to utilize sleep hygiene, a psychoeducation intervention, despite adequate evidence to support its effectiveness as a stand-alone treatment for chronic insomnia (Koffel & Hagedorn, 2020). This is because the intervention mainly focuses on modifying various environmental factors attributable to defective sleep patterns. Hence, patients are recommended to; keep their bedrooms quiet and dark under sleep hygiene education and avoid stimulants before bedtime (Koffel & Hagedorn, 2020). The authors stated that the absence of awareness among nursing practitioners about the benefits of prescribing CBT for their patients with insomnia is so significant that an online survey conducted on 1044 practitioners portrayed that 88% preferred using sleeping hygiene, 65% were for pharmacotherapy, and 44% chose relaxation therapy (Koffel & Hagedorn, 2020). Seventy five percent of the respondents incorrectly stated that sleep hygiene is an effective monotherapy (Koffel & Hagedorn, 2020). The absence of awareness among providers regarding the best approach for treating insomnia is one of the primary factors why only 10% of patients diagnosed with insomnia are prescribed CBT services, as deduced from a study that included various university medical facilities in the country (Koffel & Hagedorn, 2020). The lack of awareness could also explain why only 29% of providers in facilities with

elaborate CBT services are prescribing the therapy, compared to 71% who prefer sleep hygiene and medications (Koffel & Hagedorn, 2020).

Another study deduced that nurse practitioners are unfamiliar with CBT treatment components and are unsure about its effectiveness. This could explain why patients are rarely referred to CBT treatment since it is common for care providers to fail to prescribe a therapy without an adequate understanding of its effectiveness (Cui & Fiske, 2019). Furthermore, the existing knowledge gaps among care providers eliminate their possibility to explain the therapy to patients convincingly; thus, making the patients retain their bias towards medications (Cui & Fiske, 2019). Another barrier is that some providers possess treatment beliefs regarding the acceptability and utility of CBT for insomnia (Cui & Fiske, 2019). Some of them wrongly perceive insomnia as a symptom instead of a disorder. Hence, they focus on treating pain, depression, and anxiety over insomnia. Fifty-five percent of the sampled practitioners admitted that they first intervene on the disorder's underlying causes and believe insomnia resolves after treating other psychiatric illnesses like PTSD and depression (Cui & Fiske, 2019). The authors noted that the cited barrier could be attributed to limited awareness of insomnia etiology and how it persists to become a chronic condition.

Another qualitative study deduced that care providers are fully aware of the effectiveness of administering CBT for insomnia however, they forego the intervention because they believe that patients prefer a medication quick fix or are reluctant to adhere to CBT sessions (Sandlund et al., 2017). The study established that 30% of the patients visit health facilities expecting that they will be prescribed medications for the disorder

(Sandlund et al., 2017). Likewise, 20% of the sampled patients admitted to being non-compliant to CBT sessions (Sandlund et al., 2017). Furthermore, 39% of the sampled practitioners admitted that the cited patient-related factors were the main reasons they administered pharmacological therapies for insomnia (Sandlund et al., 2017). Forty eight percent stated that it was a significant challenge to motivate a patient to adhere to CBT for insomnia since patients often regard hypnotics as "magic bullets" (Sandlund et al., 2017).

Furthermore, a study by Morin (2020) demonstrated that yet another challenge leading to limited adoption of CBT as the first-line treatment for insomnia is the absence of motivation among providers to assess and intervene. The scholars stated that the disorder's diagnosis and treatment are of low priority relative to other illnesses. The study shows that 80% of psychiatric care providers rarely assess insomnia since they believe that patients will openly express the issue if they are experiencing sleeping challenges (Morin, 2020). Unfortunately, this is a misguided assumption, especially considering that 70% of patients with the disorder do not openly raise the issue (Morin, 2020). Hence, it is fundamental for a practitioner to assess, diagnose, and manage the disorder, just like any other illness. This explains why highly effective targeted treatments for insomnia such as CBT are rarely prescribed since the focus lies on intervening on other comorbid conditions.

Other attributes include provider attitudes since they perceive other treatment types as less demanding as well as patients' beliefs and preferences, which make them prefer other treatments. In addition, it is also crucial to state that the cited researchers

recommend several strategies to tackle the practice related challenge. One of their recommendations is developing alternative CBT delivery formats to optimize patients' convenience and eliminate the providers' time-related limitations. This can be attained through self-management, where a patient utilizes mobile applications and web-based programs to administer CBT on themselves as directed by a practitioner. The recommendation was expected to mitigate time and transport constraints (Koffel et al., 2018). Unfortunately, this approach's effectiveness is disputable, especially considering that several qualitative interviews have demonstrated that patients prefer to have some form of contact with the CBT provider (Koffel et al., 2018). Furthermore, the strategy is also disputable since there are only a few trials comparing its efficacy relative to standard CBT.

Another recommendation to tackle the mentioned constraints entails the utilization of telephone-delivered CBT; this approach has significant potential especially considering that it minimizes obstacles related to travel while at the same time facilitating the desired contact with a CBT provider (Koffel et al., 2018). Fortunately, recent randomized trials have shown that the technique significantly enhances sleep-related outcomes compared to control groups (Koffel et al., 2018). Various providers use this method to virtually provide CBT services to veterans in rural areas (Koffel et al., 2018). However, as much as video telehealth for CBT is drawing interest, the technique cannot be used as the primary approach since there are limited studies to assess its effectiveness compared to standard CBT.



Lastly, another recommended approach that seeks to overcome the challenges is group CBT. In this case, the use of classroom setups will ensure that more patients are provided with CBT services using less resources (Sandlund et al., 2017). The provider's convenience will be optimized since they will save time by attending to the group of patients. It is believed that the patients will have a greater desire to adhere to the prescribed schedules since they are likely to motivate each other towards attaining a common goal (Sandlund et al., 2017). In conclusion, psychiatric care providers have failed to prescribe CBT mainly due to knowledge limitations, personal beliefs, patients' preference, and convenience-related constraints.

### **Local Background and Context**

The outpatient psychiatric unit where this doctoral project was completed is located in Baltimore City, a unique city due to its high concentration of African Americans, who account for 63% of the city's population (Census Bureau, 2019). This high concentration of African Americans correlates with the prevalence of sleep disorders among the residents, which means a significant disparity among African Americans and non-Hispanic whites regarding their frequency of manifesting insomnia-related symptoms. Researchers have found that African Americans are more likely to experience sleep-disordered breathing, less deep sleep, and enhanced difficulties in falling asleep (Bazargan et al., 2019). The diminished sleep outcomes among the community are mainly attributed to a higher prevalence of chronic illnesses and socioeconomic challenges such as discrimination and financial difficulties that lead to depression (Bazargan et al., 2019). Furthermore, other factors are chronic pain and behavioral issues

such as alcohol consumption and smoking (Bazargan et al., 2019). The diminished sleep-related outcomes result in a scenario where patients often visit the clinic, reporting the following mental challenges: mood disturbances, lack of concentration, memory deficits, cognitive impairment, and fatigue.

Unfortunately, despite the facility serving a vulnerable population, the providers were not able to adequately intervene in the patients' challenges because their most preferred form of treatment, which was medications, is not highly effective (Sandlund et al., 2017). For instance, there was a trend in which a significant portion of acute cases of insomnia became chronic. This can be attributed to the existing practice, in which most of the care providers preferred to administer sleep medications, particularly: Estazolam, Eszopiclone (Lunesta), Ramelteon (Rozerem), and Temazepam (Restoril), as "quick fixes" to the patients' challenges. Unfortunately, all the listed drug-types can lead to dependence and tolerance, apart from Ramelteon (Rozerem) (Matheson & Hainer, 2017). The tolerance resulted in a scenario in which treated patients returned to the facility after some period, complaining of the initial symptoms.

Dependence made the uptake of these medications prolonged since pharmacotherapy did not permanently intervene in the various behavioral and thought pattern factors that resulted in sleep deprivation (Matheson & Hainer, 2017). The prolonged use of these drugs resulted in a scenario where a patient was continuously exposed to the various side effects that characterized them. The side effects included dizziness, gastrointestinal challenges such as nausea and diarrhea, prolonged drowsiness, severe allergic reaction, risky sleep-related behaviors like driving when not fully awake,

and sedation. Unfortunately, despite the cited outcomes, the providers continued to administer the sleep-inducing medications. According to them, they mainly did this due to the ease of prescription as well as patients' preferences. Therefore, it was essential for education to be provided to the providers, so they would become aware of the benefits of administering CBT as the first-line treatment for insomnia in optimizing patients' outcomes.

It is also essential to note that there are several guidelines and recommendations from federal agencies and medical professional organizations that guide insomnia treatment. According to the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5), insomnia is described as dissatisfaction with sleep quality and quantity that causes significant occupational, social, and psychological impairments (Wong et al., 2015). According to the manual, the disorder manifests in the following symptoms: difficulties in initiating sleep, difficulties in maintaining sleep, and early morning awakening that is characterized by an inability to return to sleep (Wong et al., 2015). The guideline classifies the disorder into acute, primary chronic, and associated insomnia (Wong et al., 2015). Acute cases are mainly diagnosed in patients who have not had the disorder before. This form of insomnia does not last for more than 4 months, and it is triggered by causal factors like unhealthy sleeping habits, irregular sleep schedules, and some medication types (Wong et al., 2015).

Primarily, chronic insomnia is attributed to several constitutional and genetic factors, including an abnormal circadian rhythm and hyperactivity of the stress response mechanism (Wong et al., 2015). Other factors are cognitive characteristics, behavioral

changes, and psychosocial features like irritability and fatigue (Wong et al., 2015). Also, it is associated with various underlying mood and mental disorders such as schizophrenia, anxiety, bipolar disorder, cyclothymia, dysthymia, and depression. Insomnia can also be attributed to inadequate sleep hygiene in terms of the consumption of heavy metals, alcohol, and nicotine, as well as engaging in tiresome physical activities before bedtime. Other causes are antidepressants, stimulants, metabolic diseases and infections.

According to CDC, for a patient to be diagnosed with insomnia, they must express at least one of the following challenges at least 3 nights in a week; difficulties initiating/maintaining sleep, low quality sleep, challenges in falling asleep despite being in an enabling environment, and waking too early (Wong et al., 2015). According to CDC, for one to be administered an insomnia treatment, one ought to manifest some of the following daytime impairments; mood disturbance, lack of motivation, gastrointestinal symptoms, daytime sleepiness, fatigue, as well as memory, concentration, and attention impairments (Wong et al., 2015). The agency also stipulates the main objectives of any chosen insomnia treatments are to improve sleep quantity and quality and diminish the associated or resultant daytime impairments (Wong et al., 2015). Equally important, the agency states that the preferred therapy should be chosen based on the following factors:

1. Symptoms pattern
2. Treatment goals
3. Past treatment responses
4. Patient preference

5. Cost implications
6. The availability of other therapeutic alternatives
7. The presence of comorbid conditions
8. Concurrent medication interactions
9. Potential adverse effects

Apart from CDC, another organization that provides crucial guidelines concerning insomnia management is the American College of Physicians (ACP). ACP guidelines are based on evidence deduced from a systematic review of randomized controlled trials. The guidelines recommend CBT as the first-line treatment for adults with chronic insomnia (Qaseem et al., 2016). ACP recommends CBT for insomnia since it is a combination treatment that consists of behavioral interventions, particularly stimulus control and sleep restriction. Apart from behavioral intervention, the treatment comprises of cognitive therapy and sleep-related education (Qaseem et al., 2016). These components optimize the therapy's efficacy in enhancing various sleep-related outcomes by improving sleep quality, improving sleep efficiency, reducing wake after sleep onset, and decreasing sleep onset latency (Qaseem et al., 2016). An improvement of the cited factors was assessed using Insomnia Severity Index (ISI) and the Pittsburgh Sleep Quality Index (PSQI) scores (Qaseem et al., 2016). CBT for chronic insomnia is recommended by the ACP because the intervention is characterized by mild or no side effects, unlike other approaches such as pharmacotherapy (Qaseem et al., 2016). In addition, the ACP also recommends that practitioners utilize a shared decision-making strategy with the patients to discuss the possibility of combining medications and CBT for short-term use in scenarios where

CBT fails to attain the desired outcomes as a stand-alone treatment (Qaseem et al., 2016).

Some of the issues that ought to be discussed relate to cost, harm, and benefits.

The U.S. Food and Drug Administration (FDA), has approved benzodiazepines (quazepam, flurazepam, temazepam, estazolam, and triazolam), as well as nonbenzodiazepine hypnotics (eszopiclone, zolpidem, and zaleplon), as treatment for insomnia (Qaseem et al., 2016). Other recently approved medications include the antidepressant doxepin, the melatonin receptor agonist ramelteon, and orexin receptor antagonist suvorexant (Qaseem et al., 2016). The FDA stipulates that the cited medications should only be adopted for short-term use, not exceeding five weeks. The FDA states that in scenarios where drugs are prescribed and there fail to be any notable signs of remission within 7 to 10 days after prescription, the care provider should reevaluate the treatment (Qaseem et al., 2016). In addition, the FDA also recommends that it is crucial to treat the underlying causes of insomnia such as substance abuse disorders, pain, and depression, before opting for sleep-inducing medications.

Lastly, yet another major organization that addresses the issue is the American Academy of Family Physicians (AAFP). The organization states that as much as behavioral therapies ought to be the mainstay treatments for insomnia, pharmacotherapy could be necessary for some patients (Matheson & Hainer, 2017). However, the agency also notes that a care provider must assess its risks and benefits before administering a particular medication type. AAFP discourages the administration of benzodiazepines due to the availability and their high potential for abuse (Matheson & Hainer, 2017). Furthermore, atypical antipsychotics, antiepileptics, and antihistamines are also

discouraged by the AAFP's guidelines unless prescribed primarily to treat the underlying causes of insomnia (Matheson & Hainer, 2017). AAFP also discourages sedative-hypnotic prescriptions as the first treatment for insomnia among advanced age (Matheson & Hainer, 2017). Lastly, the organization's guidelines recommend that hypnotics as the primary therapy for chronic insomnia among adults should be avoided, in preference of CBT, due to its capability to intervene on the underlying causes of insomnia (Matheson & Hainer, 2017). Therefore, one can conclude that the existing federal agencies and medical organizations' guidelines and recommendations have addressed the benefits of using CBT for treating insomnia. The proposals outline the benefits of utilizing CBT, how to prescribe, and scenarios in which other treatment modes can support it. Hence, these guidelines were incorporated in the teaching plan so that the targeted care providers could appreciate the fact that the use of CBT was well supported by various healthcare regulatory agencies and medical professional organizations. This appreciation played a significant role in persuading them to adopt CBT as their primary intervention for insomnia among adults.

### **Role of the DNP Student**

My specialization as a psychiatric nurse practitioner has resulted in frequent interactions with patients with defective sleeping patterns. Some of them have the challenge due to underlying psychiatric conditions such as anxiety disorders and depression. In contrast, others result from inappropriate bedtime behaviors like consuming caffeine before going to bed. From my experience, the form of insomnia caused by inappropriate behaviors is easy to manage since it requires educating the

patient about bedtime habits that should be avoided for them to sleep adequately. Hence, this form of insomnia is often acute, and only requires behavioral modifications for it to be managed. The other form of acute insomnia that is attributed to factors such as pain and stress is also easy to treat as it requires low-dose medications such as doxepin for about a week.

However, from my practice, the form of insomnia that requires significant precaution in its treatment is a sleep disorder that manifests due to various psychiatric conditions, including anxiety disorders, depression, and PTSD. This form of insomnia can either be categorized as a symptom of mental illnesses or comorbid conditions. The treatment of this type of insomnia necessitates extra precaution because of the importance of modifying or eliminating the underlying behavioral thought patterns that could be leading to the sleep disruption. The elimination of the said patterns cannot be eliminated instantly, meaning that a collective commitment between the care provider and the client is needed. In the period that I practiced in the clinic, I observed that neither the clients nor the providers were usually willing to commit their time towards modifying the disruptive thought patterns progressively. Thus, resulting in a scenario where medications were often prescribed since they had an immediate impact in suppressing the factors that cause insomnia. However, as much as this approach suppressed the symptoms, it did not eliminate the underlying causes of sleep disruption, resulting in a situation where a patient required the medications permanently for the disorder to be managed. Unfortunately, the long-term use of sleep-inducing prescriptions continuously exposed a



patient to various side effects such as sedation, resulting in falls, alongside other unintended outcomes like dependence and tolerance.

My colleagues continued to ignore these unintended consequences of the pharmacologic approach, mainly due to patients' preferences, ease of prescription, personal biases, and the lack of adequate awareness about the advantages of CBT compared to medications. Therefore, I felt a duty to educate them about the benefits of adopting CBT as the first-line treatment for insomnia. In my literature review, I deduced that as much as CBT has no immediate impact in preventing sleep deprivation, it is highly effective in the long-term since it retrains a patient to alter the thought patterns attributable to disruptive sleep behaviors. Hence, preventing insomnia cases from becoming chronic and safeguarding the patient from the adverse side effects of medications.

While I strongly believe in the value and efficacy of CBT, I must also state that I possess a personal bias against medication use for treatment of sleep disorders. In Africa, my region of origin, it is uncommon for individuals to seek medications due to inadequate sleep. Most residents, especially in rural areas, often have to cope with "more pressing" health challenges that include tropical diseases like malaria. This means that they perceive insomnia as a less serious health condition that can be managed through less intense or unconventional treatments such as aromatherapy and relaxation therapy (Adu-Gyamfi & Anderson, 2019). Hence, it is rare for the population to seek medical experts' treatment for sleep disorders, especially in interior regions, to avoid incurring a medical bill. The socioeconomic challenges among some residents make them visit

healthcare facilities only when coping with critical health conditions such as HIV/AIDS, cancer, infectious illnesses, and fractures. The locals lack awareness that chronic insomnia can lead to severe cognitive impairments, comorbid conditions, and diminished productivity. Thus, they often ignore the need to seek specialized care in managing the disorder and opt for non-conventional remedies. However, I focused on addressing my personal bias against sleep-inducing pills by being objective in my literature review. In this case, I mainly focused on the comparative benefits of other forms of treatment such as CBT, rather than solely focusing on the disadvantages of medications. A comparative assessment enabled me to deduce the most impactful therapy for optimizing the patients' outcomes. Thus, my intention of completing this DNP staff education project to educate my colleagues about the benefits of utilizing CBT as the first-line treatment for insomnia, was not based on personal bias, instead it was premised on the available literature that strongly supported it.

### **Summary**

This section demonstrated that there is a significant gap in practice, in which psychiatric care providers choose prescription medication over CBT to treat patients with insomnia. Unfortunately, as witnessed in my organization of practice, the adoption of sleep-inducing medications, resulted in a scenario where the treated patients always returned complaining of the initial symptoms. Despite the cited disadvantages, care providers had a bias towards medications. Therefore, Chapter 3 included a review of literature that assisted in deducing the comparative advantages of CBT over medication for treatment of insomnia. The advantages or outcomes were highlighted while educating

the providers about the importance of adopting CBT as the first-line intervention for insomnia, to optimize patient outcomes, thus positively impacting social change.

### Section 3: Collection and Analysis of Evidence

#### **Introduction**

In the United States, the prevalence rate of insomnia is 35% (Mitchell et al., 2015). Traditionally, the disorder was regarded as a symptom of other medical and psychiatric conditions, including chronic pain, anxiety disorders, and depression. However, recent evidence depicts that insomnia also manifests as a comorbid or primary condition and not just a symptom of other illnesses, necessitating targeted treatment. Failure to effectively intervene by treating insomnia results in concentration lapse, fatigue, impaired cognition, irritability, reduced quality of life, problematic interpersonal relationships, low productivity, and increased likelihood of new-onset psychiatric conditions. Unfortunately, despite insomnia being a significant public health challenge in the U.S., most care providers, particularly in my facility of practice, prefer to utilize medications due to their ease of prescription and their clients' preferences. The use of drugs is disputable due to their inability to significantly enhance sleep-related outcomes. Sleep-inducing pills are characterized by dependence, tolerance, alongside significant side effects like sedation. Worse, pharmacotherapy rarely results in full remission of insomnia (Mitchell et al., 2015). Therefore, the purpose of this doctoral staff education project was to create awareness among psychiatric care providers so that they would adopt CBT, which is more efficacious as the first-line treatment for insomnia. This section discussed the collection and analysis of evidence to support CBT for treatment of insomnia.

### **Practice-Focused Question**

This doctoral project took place in a psychiatric outpatient clinic located in Baltimore City. Sixty three percent of the city's population is comprised of African Americans. The high population of African Americans could explain the high prevalence of insomnia among the residents. African Americans often cope with various socioeconomic disparities compared to non-Hispanic whites. This often results in decreased quality of life, reduced access to healthcare facilities and health-enhancing resources; thus, leading to a higher prevalence of various psychiatric disorders such as insomnia, depression, and anxiety in the population (Bazargan et al., 2019). Medication, which is the primary approach to managing the disorder among the facility's practitioners, has moderate efficacy (Matheson & Hainer, 2017). Sleep-inducing pills cannot fully intervene in the root causes of sleep deprivation; instead, they only suppress the condition, which results in tolerance and dependence in the long run. Thus, it is common for treated patients to return to the facility with the same complaints regarding inadequate sleep. It is, therefore, evident that medication does not safeguard full remission for insomnia. Fortunately, the providers can adopt CBT, which is highly effective in treating insomnia, particularly in the long-term. The therapy can modify the behavioral and thought patterns associated with sleep disturbance; hence, enhancing the likelihood of full remission. Furthermore, unlike medications, CBT is not associated with any significant side effects. Therefore, this doctoral staff education project created awareness among the care providers in the facility about the benefits of adopting CBT as the first-line treatment for insomnia, particularly in adults. The enlightenment was intended to overcome various

personal biases, beliefs, and attitudes that prevented the providers from recommending CBT therapy to patients with insomnia. Hence, the practice-focused question was: Does creating awareness through education increase the providers' knowledge about CBT in managing insomnia and their intent to recommend this treatment for their patients?

### **Sources of Evidence**

This project relied on previous experimental studies that were conducted to determine the effectiveness of utilizing CBT as the first-line treatment for insomnia. Thus, the outcomes of this literature review supported that providers must be educated about the significance of adopting CBT for insomnia, thus impacting positive social change. The review relied on studies that were conducted within the past five years. The project also depended on data acquired from a pre-post survey that was administered to the targeted providers who attended the education session. The survey intended to determine and compare their understanding of the benefits of administering CBT for insomnia before and after the education intervention. The questionnaire scores illustrated their intent to recommend CBT as the first-line treatment for insomnia before and after the education session. This project bridged the existing practice gap, in which CBT for insomnia was foregone in preference for other lesser efficacious modes of treatment, due to providers' biases, beliefs, and lack of motivation to administer the therapy. Also, CBT is more demanding in terms of time commitment and patience compared to other forms of insomnia treatment such as medication. The review provided evidence concerning the various benefits of CBT for insomnia treatment compared to other types of treatment. This project provided education to providers including a detailed illustration of

justification concerning the benefits of prescribing CBT to patients with insomnia. The pre-post survey assessed whether the available evidence enlightened the targeted care providers and whether they were persuaded to utilize CBT as the first-line intervention for insomnia. This was measured based on their intent to recommend CBT to their patients with insomnia. The electronic databases that were utilized to acquire literature included; PubMed, Education Resources Information Center (ERIC), *Cochrane*, Scopus, Science Direct, Medline, and PsycINFO. Some of the key search terms that were utilized in retrieving the relevant articles included; “Chronic Insomnia in adults,” “Strategies for treating chronic insomnia in adults,” “CBT for managing chronic Insomnia in adults,” and “Effectiveness of CBT versus medications in treating chronic insomnia in adults.”

### **Evidence Generated for the Doctoral Project**

One of the studies upon which the provider education initiative was based was conducted by Mitchell et al. (2016). The study intended to evaluate the comparative effectiveness of CBT versus medication treatments among patients with comorbid and primary insomnia. The main findings of the study were that; CBT is more efficacious than medications in insomnia treatment as well as the outcomes of CBT are more durable than medications. The study concluded that psychiatric care providers are recommended to consider CBT as the primary intervention for insomnia. The recommendations of this study are highly reliable, as it is a systematic review, that is level one evidence.

Another study by Majendie et al. (2016) intended to determine whether a patient who had been diagnosed with multiple sclerosis and reported sleep medications dependence, would be assisted to improve their sleep quality and reduce the need for

sleep medications, by being administered CBT for 3 months. At the end of this period, the following observations were recorded; an improvement of subjective sleep quality as depicted by a sleep diary and the Pittsburgh Sleep Quality Index. The patient reduced their utilization of sleep medications to nil, until he stopped experiencing any form of sleep disturbance, which means that the introduction of CBT eliminated sleep-pills dependence. Furthermore, the follow-up sleep measures demonstrated that sleep quality improvements had been retained in the long-term. Unfortunately, as much as the study indicated that CBT is effective in treating patients diagnosed with multiple sclerosis and who report sleep medications dependence, it is not highly reliable since it is a case study, that is level six evidence.

Another study cited in the review of literature, was conducted by Pchelina et al. (2018) who intended to determine the efficacy of CBT in comparison to pharmacotherapy for chronic insomnia. The study deduced that there is no significant difference between the effectiveness of CBT and pharmacotherapeutic interventions in the short-term or within one month of treatment. The effectiveness was assessed using the following measures; the Beck Depression Scale, the Sleep Hygiene Index, the Dysfunctional Beliefs about Sleep Scale, the Pittsburgh Sleep Quality Index questionnaire, the Pittsburgh Sleep Quality Index questionnaire, and the Insomnia Severity Index. However, a reassessment of the outcomes after two months indicated that the patients who had been administered CBT had better scores compared to the ones who had been prescribed medications. Thus, the researchers concluded that as much as CBT, at first, is comparable with insomnia medications, its effects last longer and it has a greater capability to



improve a patient's emotional status. This was a crossover trial, that is characterized by moderate level of evidence.

Taylor and Pruiksma (2016) also used in determining the need of educating providers about the significance of prescribing CBT for insomnia, particularly among adults. The main purpose of the study was to assess the impact of CBT for insomnia, in improving sleep quality among patients with comorbid psychiatric illnesses as well as assess the impact of CBT for insomnia on other psychiatric symptoms among patients with comorbid psychiatric conditions. The results of this study demonstrated that CBT for insomnia is highly efficacious in improving the quality of sleep among individuals with comorbid psychiatric disorders including: hypnotic medication dependence, alcohol dependence, PTSD, anxiety, and depression. The researchers concluded that that CBT for insomnia improves anxiety and depression symptoms among both primary and comorbid insomnia populations. Therefore, the researchers recommend that CBT for insomnia should be adopted to augment treatment for patients with comorbid substance abuse, PTSD, anxiety, and depression disorders, since the augmentation would enhance sleep quality and improve both anxiety and depression symptoms, in clinical practice. The study is a systematic review, which means that it is level one evidence.

Straten et al. (2017) quantified the effects of cognitive, behavioral, and educational therapies for insomnia based on the available randomized controlled trials (RCTs). The study concluded that CBT for insomnia had better outcomes of; sleep quality, number of awakenings, sleep onset latency, wake after sleep onset, and sleep efficiency, compared to other self-help and face to face interventions, regardless of age,

comorbidity, or the use of sleep-inducing medications. This study is highly reliable since it was a meta-analysis representing level one evidence.

Park et al. (2018), intended to determine whether the administration of CBT among patients with insomnia would reduce the need for sleep medications and result in improved treatment outcomes in the long-term. The researchers established that the administration of CBT for insomnia significantly reduces the need for hypnotics. The study also concluded that the impacts of CBT on insomnia are incremental rather than instant, this is because, the participants who were administered CBT were dropping hypnotics gradually, and not immediately. Therefore, the scholars concluded that the long-term use of CBT for insomnia could safeguard patients from the adverse effects of sleep-inducing medications. This was a retrospective study, representing level four evidence.

Morin et al. (2019) aimed to assess the short-term and long-term impacts of CBT, singularly and in combination with medications, in treating persistent insomnia. The study established that CBT alone or in combination with pharmacotherapy was adequate in managing persistent insomnia. It also determined that the addition of medications resulted in enhanced benefits, particularly regarding increased sleep time. However, the benefits of combined therapy were only witnessed in the acute treatment phase. In fact, the optimum long-term benefits were witnessed whenever medications were discontinued after the first 6 weeks of combination therapy. Thus, in the long-term CBT had greater levels of remission rates and treatment response compared to combination. This study is highly reliable since it was a Randomized Controlled Trial.

Feng et al. (2020) evaluated the safety and clinical effectiveness of CBT in treating insomnia comorbid with depression. The study deduced that CBT was highly effective in treating insomnia comorbid with depression. Furthermore, in terms of effectiveness, CBT was as effective as hypnotics (benzodiazepine agonist, estazolam, and zopiclone) in treating insomnia comorbid with depression. However, as much as the two forms of treatment were found to be equally effective in treating insomnia comorbid with depression, the researchers recommended the use of CBT since it is a safe intervention, because of its noninvasive nature. The study was a randomized controlled trial.

In addition, a Systematic Review by Rios et al. (2019), intended to evaluate the safety and effectiveness of psychotherapeutic and pharmacological approaches in treating adults with insomnia. Following the review, the researchers recommended that CBT should be utilized as the first-line treatment for insomnia, due to the following results; strong evidence concerning its effectiveness in enhancing multiple sleep-related outcomes as well as the fact that it is not characterized with major side effects. This effectiveness was higher compared to; Benzodiazepines, Nonbenzodiazepine receptor agonists, Suvorexant, Antidepressants, Antipsychotics, Melatonin, Diphenhydramine, meditation, Stress reduction, and Combination therapy. The researchers also recommend that whenever CBT for insomnia is not adequately effective, it can be combined with doxepin, suvorexant, zolpidem, or melatonin, for a short duration.

Lastly, Jacobs et al. (2017) assessed the clinical effectiveness of pharmacological and behavioral therapy, in treating chronic sleep-onset insomnia, singly and in combination. The trial deduced that CBT for insomnia was the most efficacious

treatment. It was characterized with the most significant changes in sleep efficiency and sleep-onset latency. It also yielded the highest number of normal sleepers after treatment, and maintained improved sleep outcomes in the long-term. The trial also demonstrated that combined treatment did not have any disadvantages of CBT alone. On the other hand, medication resulted only in moderate improvements during the period of drug administration. However, the moderately improved outcomes declined towards baseline after the medications were discontinued. These outcomes are highly reliable since it was a Randomized Controlled Trial.

### **Analysis and Synthesis**

#### **Procedure**

An education session was developed based on evidence from the literature. To approve the validity of its contents, an expert panel of two nurse practitioners and a psychiatrist who practice in another psychiatric facility were asked to review both the presentation and the surveys. It is essential to note that the presentation lasted for about 40 minutes. Both the presentations and surveys were conducted in face-to-face sessions at the facility's boardroom.

The outpatient unit comprised of 2 nurse practitioners and 3 psychiatrists and these were the intended participants for the education session. The education was provided to the 5 participants, based on their willingness to volunteer. The participants were notified about the learning initiative through an email, and they were also expected to provide feedback regarding the most appropriate time and date to conduct the initiative. The email included a description of the class, as well as the purpose of this

DNP project. It also acted as a form of invitation to participate in the class. It illustrated how their identities were protected and how feedback and data was kept confidential.

In order to assess the desire of the care providers to adopt CBT as the first-line treatment for insomnia as well as its benefits in improving sleep-related outcomes, before and after the education session, a pre-post survey was administered. The pre-survey was administered before the program was initiated to determine the participants' current understanding of the topic. The scores of this survey were then be recorded for a comparative analysis to be conducted relative to the outcomes of the post-survey.

After their initial competence was assessed, the education session was then provided, with the aim of utilizing the acquired information from the cited literature to persuade the providers about the need to adopt CBT as the first-line treatment for insomnia. A post-survey was administered to evaluate the extent to which they were enlightened by the presentation and their level of persuasion and willingness to utilize CBT as the primary treatment for insomnia in the facility. A question about intent to recommend CBT was included in the post survey.

The pre-post survey was conducted in the form of questionnaires (attached in the appendix). The questionnaires comprised of two main sections. The first segment dwelled on the participants' demographic data, mainly in terms of age and gender. Analysis of this demographic data helped determine if there was any form of correlation between the providers' age and gender and their understanding and preference for CBT for insomnia. For instance, the section helped illustrate whether one's age was a determiner of choice or avoidance of CBT for insomnia. On the other hand, the second segment comprised

questions that assessed the participants' competence in handling CBT for insomnia and how they ranked the effectiveness of the therapy relative to other treatments. Their responses were graded on a scale of 0-5, with a cumulative total provided at the end. These scores then determined if the providers have gained; low, moderate, or high awareness concerning the benefits of utilizing CBT for insomnia, and their level of willingness to adopt it as the first-line treatment for the disorder.

Schematic analysis and descriptive statistics were utilized to assess the providers' knowledge regarding the benefits of adopting CBT as the first-line treatment for insomnia. In this case, the accuracy of their responses before and after the education session were assessed and each respondent graded with a certain score. The scores were then analyzed using descriptive and inferential statistics to determine the participants' level of awareness and intent to recommend CBT, before and after the education presentation.

### **Protection**

This DNP project complied with the necessary ethical standards, based on federal regulations and the University's guidelines concerning this form of a study. IRB approval and permission to conduct the project in the facility was obtained from the organization's administrators using the Walden site approval form. This was done before participant recruitment, education and data collection. Class participants were protected using several measures. Recruitment to attend the class was voluntary. In this case, the participants were sent an email detailing how the project would be conducted and its purpose. After being provided with this description, they were then requested to provide

feedback regarding their willingness to participate. Furthermore, to protect their identities, the participants were asked to provide unique identifiers for the pre and post survey so no results could be compared. Lastly, all their data and responses were stored in a password-protect folder.

### **Summary**

This section described the collection and analysis of evidence. This doctoral project relied on two forms of evidence: evidence collected from a review of literature and data obtained from a pre-post survey administered among the targeted care providers. Chapter 4 discussed the findings and implication as well as the recommendations, strengths and limitations of the project.

#### Section 4: Findings and Recommendations

### **Introduction**

Insomnia is regarded as a sleep disorder that makes an individual have difficulties falling or staying asleep. The disorder can either be acute or chronic. At the outpatient psychiatric unit in which the doctoral project is based, insomnia is one of the chief complaints among many of the clients. The diminished sleep outcomes can be attributed to the fact that the mental health facility is in Baltimore City, which has a 63% African American population. Compared to non-Hispanic Whites, African Americans often cope with various health and socioeconomic disparities, that affect their psychological and physical wellbeing as well as their quality of life. Thus, the high prevalence of various morbidities and the presence of various stressors such as crime and violence in the African American neighborhoods are some of the primary causes of diminished sleep

outcomes among most of the residents, particularly those who reside in low-income neighborhoods. Unfortunately, despite the mental health clinic attending to a high number of patients with insomnia-related complaints, medications, the current mode of treating the disorder in the facility is not highly effective (Sandlund et al., 2017). Therefore, the doctoral project intervened on the gap in practice, by formulating a providers' education program regarding the advantages of prescribing CBT as an alternative intervention when treating chronic insomnia among adults. The project was based on the following practice-focused question; Does the creation of awareness through education, increase the providers' knowledge about CBT in managing insomnia, and their intent to recommend this treatment for their patients?

### **Sources of Evidence**

Evidence for this project was deduced from previous experimental studies that assessed the effectiveness of CBT in treating chronic insomnia. The studies were obtained from the following databases: PsycINFO, Medline, Science Direct, Scopus, *Cochrane*, PubMed, and Education Resources Information Center (ERIC). The information obtained from these sources was then compiled to formulate the providers' education program. The project also relied on data acquired from a pre-post survey that was administered to the class participants. An analysis of this data was fundamental in determining the extent to which the education program enlightened them about the importance of prescribing CBT in the treatment of insomnia, as well as their readiness to adopt CBT as the first-line intervention for insomnia.



## **Findings and Implications**

### **Outcomes From the Preintervention Survey**

The preintervention questionnaire was made up of demographic data and 11 questions, of which six of them were gradable while the rest were not. The questions were intended to assess the care providers' competence or knowledge regarding the various aspects of CBT for insomnia and their readiness to prescribe the treatment for the sleep disorder, before the provision of the education program. The demographic makeup of the participants was; 2 males and 3 females, only one participant was aged above 46, while the median age was between 36 to 40 years, as depicted on Table 1. In addition, 3 of the participants were psychiatry mental health nurse practitioners while 2 were psychiatrists. An analysis of the preintervention questionnaire responses indicated that the care providers had limited competence regarding various aspects of CBT for insomnia. For instance, only 2 participants provided an accurate response regarding "Which is the most appropriate intervention for a patient who complains of sleep difficulties for at least 6 months?" (Table 2). This shows that only a limited number of participants recognized CBT as the most appropriate intervention for chronic insomnia, despite various professional organizations such as the American College of Physicians and the American Academy of Family Physicians recommending the utilization of CBT as the first-line treatment for chronic insomnia (Qaseem et al., 2016). Thus, the outcomes of the preintervention survey indicate that the psychiatric care providers in the facility were not cognizant of the existing professional guidelines and recommendations.

### **Outcomes from the Postintervention Survey**

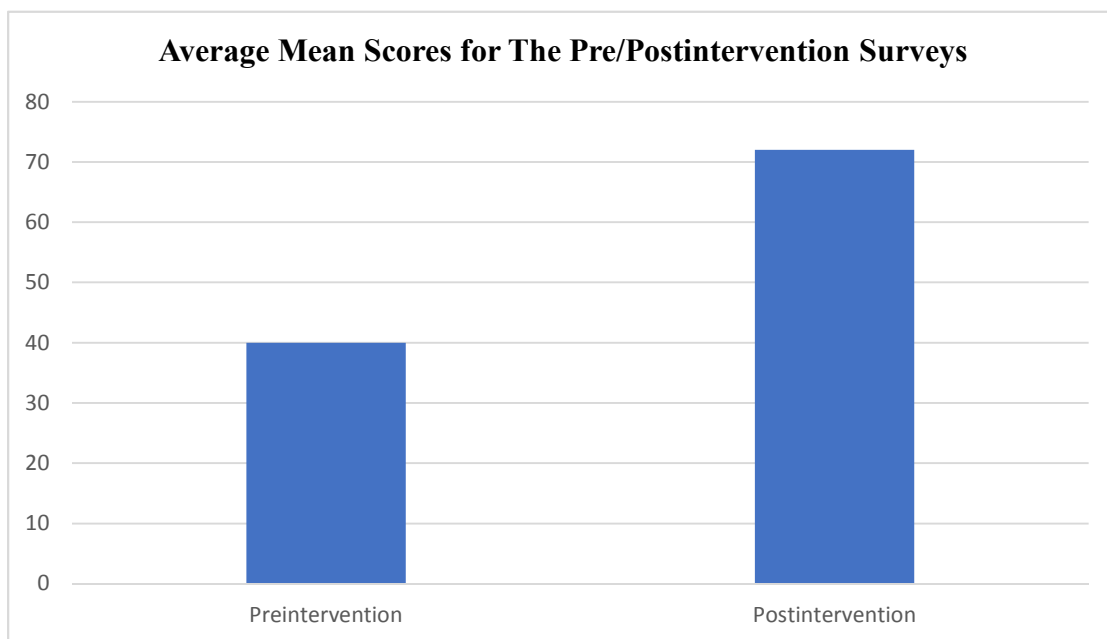
At the end of the education, a postintervention survey was administered. The postintervention survey was identical to the preintervention one since it evaluated whether the education program was impactful in enlightening the participants about the different elements of CBT for insomnia as well as persuading them to adopt the treatment as the first-line intervention for the sleep disorder. An analysis of the responses indicated that the education program was effective in enlightening the care providers about the benefits of prescribing CBT for insomnia as well as changing their attitudes towards the treatment. For instance, 4 of the participants provided accurate responses regarding "Which is the most appropriate intervention for a patient who complains of sleep difficulties for at least 6 months?" compared to the preintervention survey, where only two of the participants were correct (Table 2). The difference shows that most of the participants believed treatments such as the prescription of benzodiazepines are the best options when treating chronic insomnia in adults, before the provision of the care providers' education program. However, as much as benzodiazepines such as triazolam, quazepam, temazepam, flurazepam, and estazolam are approved by the FDA for treating insomnia, the agency recommends that these drugs should only be used in the short-term, not exceeding five weeks, owing to the appreciation that they are associated with negative outcomes such as sedation, tolerance, and dependence (Qaseem et al., 2016). Hence, the accurate responses by 4 of the 5 participants regarding the question evaluating the most appropriate intervention for chronic insomnia in the postintervention survey

indicates that the education program created sufficient awareness among the care providers.

Furthermore, an analysis of the postintervention survey responses also indicates that the education program was effective in persuading the participants about the need to adopt CBT as the first-line treatment for chronic insomnia. This is because, in the preintervention survey, only 1 of the participants was willing to prescribe CBT for chronic insomnia, compared to 4 of the 5 participants after the provision of the education program. Therefore, one can conclude that the education program made the care providers more appreciative of the benefits of prescribing CBT for chronic insomnia, and this appreciation increased their willingness to adopt the intervention as the first-line treatment for the sleep disorder.

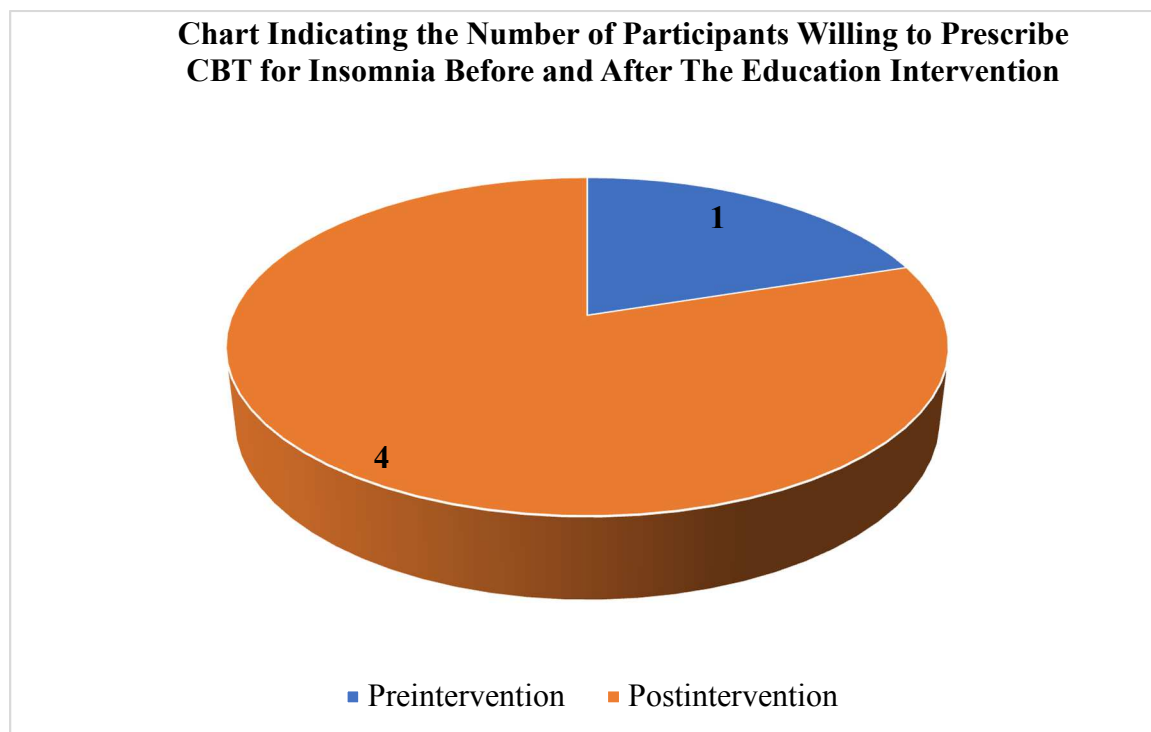
**Figure 4**

*Graphical Representation of The Mean Scores of The Participants' Responses During the Pre/Postintervention Surveys*



**Figure 5**

*A Chart Indicating the Participants' Willingness to Prescribe CBT For Insomnia Before and After the Education Program*



### **Limitations and their Potential Implications on the Findings**

The main limitation of the education program was the number of participants. The program targeted 5 participants, who were the only care providers that volunteered to take part in the initiative. This included 2 Psychiatric Mental Health Nurse Practitioners and 3 psychiatrists. The small number of participants is a significant limitation since the averages of their pre-post survey scores might not represent the trends of a larger sample size. This means that there is a possibility that a larger sample size could have failed to demonstrate the same level of readiness to adopt CBT as the first-line treatment for

insomnia among adults, following the education intervention. Hence, this limitation means that a larger sample size might not necessarily depict the same level of persuasion or awareness regarding the benefits of CBT for insomnia as well as the same level of readiness to prescribe the treatment to the affected patients, following the provision of the education program, as compared to the current sample size of 5 participants.

### **Implications of the Findings on Individuals**

The absence of effective guidelines regarding the management of insomnia has resulted in dynamic challenges among individuals, the community, the mental health organization, and the larger healthcare delivery system. Fortunately, the ability of this project to analyze the existing literature and deduce that CBT is an ideal intervention for insomnia, as well as the capability of the education program to create awareness among the care providers about the benefits of prescribing CBT for insomnia, alongside the program's ability to persuade them to be prescribing CBT to their clients, as deduced from results of the postintervention survey, will have a positive implication on all the mentioned parties or stakeholders. To start with, the willingness of the care providers to prescribe CBT while treating insomnia will have a significant impact on the overall wellness of the patients' population. For instance, the utilization of CBT will be crucial in managing the severity of various comorbid psychiatric illnesses such as anxiety disorders and depression, that often manifest in patients with chronic insomnia (Krystal et al., 2019). Hence, the adoption of CBT as the first-line treatment of insomnia will result in improved psychological wellness among the affected patients. Besides, the enhanced management of chronic insomnia will diminish the likelihood of onset of other chronic

illnesses particularly hypertension and diabetes, especially considering that insomnia is one of the risk factors of these illnesses (Krystal et al., 2019). In addition, CBT is also effective in intervening on insomnia symptoms such as fatigue, concentration, and memory challenges, as well as irritability and excessive daytime sleepiness. The effective management of these symptoms, particularly fatigue and excessive daytime sleepiness, will diminish the occurrence of complications such as falls, hip fractures, and machine-related accidents (Krystal et al., 2019). Therefore, the outcomes of this project will have a significant positive impact on the overall wellness of individuals diagnosed with chronic insomnia.

### **Implications of the Findings on the Community**

This project was completed in a psychiatric outpatient clinic that is in Baltimore City, a city whose population is mainly comprised of African Americans. The overall mental and physical health of African Americans ranks below that of non-Hispanic Whites or that of the non-minority population. This is because African Americans are usually characterized by several socioeconomic disparities that affect their overall wellness as well as their ability to access routine medical services. Such disparities include: access to medical insurance, financial constraints, unemployment, as well as residence in neighborhoods that are characterized by challenges such as crime and violence that diminish the residents' psychological and physical wellness. Therefore, due to the cited challenges and socioeconomic disparities that characterize the community within which the project was initiated, most residents usually report to the psychiatric clinic with sleep deprivation-related complaints. The high number of these complaints is

attributed to the existing stressors such as crime, violence, domestic abuse, financial challenges, and diminished physical health, among the residents. The reviewed evidence indicates that the cited stressors are some of the primary causes of the onset of acute insomnia which later develops into chronic insomnia if not effectively managed. Hence, the adoption of CBT as the first-line treatment of insomnia in the mental health facility in which the project took place, will be crucial in achieving targeted treatment of the underlying causes of sleep deprivation among the vulnerable population. This is because CBT is effective in assisting an individual to cope, manage, and overcome various environmental and behavioral factors that lead to an onset of insomnia. Therefore, the outcomes of this project will have a significant positive implication on the health of the socioeconomically vulnerable community, that predominantly receives psychiatric services in the healthcare facility within which the project was initiated.

On top of that, apart from having a positive impact on the mental and physical health of the local community, the project will also have a substantial effect on its economic welfare. Especially considering that some symptoms of insomnia such as fatigue and excessive daytime sleepiness are associated with diminished productivity. Hence the capability of insomnia to adequately intervene on the cited symptoms will result in improved productivity among the affected individuals. This will mean that the local community will have fewer cases of the lost labor force. Furthermore, the enhanced management of insomnia following the adoption of CBT will translate into fewer hospitalizations related to various medical issues and psychiatric disorders, in which insomnia is a risk factor. Such complications and disorders include; depression, anxiety



disorder, hypertension, and diabetes (Krystal et al., 2019). The reduced rate of hospitalization means that the community will not have to cope with high medical bills. Therefore, this project will reflect on the economic and financial welfare of the local community.

### **Implications of the Findings on Healthcare Organizations**

The outcomes of the project have the potential to positively impact the reputation of various healthcare organizations, should they choose to adopt the recommendations. Currently, in most psychiatric health facilities, medications are the main interventions in the treatment of insomnia (Sandlund et al., 2017). However, as earlier noted, medications are not highly effective in the treatment of insomnia and are only preferred due to their ease of prescription (Sandlund et al., 2017). Hence, healthcare facilities that will adopt the outcomes of this project will report improved management of insomnia cases. The improved management of cases of sleep disorder will be based on outcomes such as improved sleep efficiency and sleep-onset latency. As well as an improved number of normal sleepers after treatment and the maintenance of improved sleep outcomes in the long term. The ability of a healthcare facility to comprehensively intervene on sleep deprivation complications will enhance its reputation among its clients and the general public. Thus, enhancing its ranking and raising the demand for its services.

### **Potential Implications for Positive Social Change**

This project has the potential to result in enhanced mental health among the patient population since it recommends the adoption of CBT as the first-line treatment for insomnia, which can target and intervene on the underlying comorbid conditions of the

sleep disorder such as depression and anxiety disorders. The providers showed intent to incorporate this treatment which is positively impact the patient population. The enhanced treatment of chronic insomnia due to the adoption of CBT will diminish the risk of the onset of chronic diseases such as diabetes and hypertension. Thus, safeguarding the overall health of the affected population. CBT will be effective in managing and preventing the manifestation of adverse symptoms such as fatigue and excessive daytime sleepiness amongst the affected patients. These symptoms usually reduce the productivity of individuals. Hence, their effective management improves the social and economic productivity of the targeted population. The effective management of symptoms such as daytime sedation also reduces the risk of machine-related and motor vehicle accidents in the community of interest. The enhanced treatment of insomnia has the potential to reduce the hospitalization rate for various comorbid psychiatric and medical conditions associated with the sleep disorder. This can improve the financial wellness of the affected population since they will not have to cope with routine medical bills. In addition, the reduced rate of hospitalizations will increase the socioeconomic productivity of the affected persons since fewer labor hours will be lost.

## **Recommendations**

### **Recommended Practice Guidelines/Protocols**

For the effective adoption of CBT as the first-line treatment for insomnia in the psychiatric outpatient clinic, it is recommended that the facility adopt the following recommended standards, protocols, and practice guidelines. To start with, the facility

should adopt the following diagnostic criteria for insomnia as per the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5):

1. Complaints of sleep quality or quantity that are associated with difficulties falling asleep, staying asleep, and/or early morning awakenings (Krystal et al., 2019).
2. The sleep problem causes some form of daytime dysfunction or complication in terms of; prone to errors, reduced motivation, aggression, impulsivity, hyperactivity, sleepiness, irritability, and mood disturbance. In addition, there is impaired occupational, family, academic, or social performance. Other manifestations include malaise, fatigue, memory, concentration, and attention impairment.
3. The sleep disturbance occurs despite the presence of a dark, safe, quiet environment.
4. Sleep difficulties have been occurring for at least 3 nights per week for at least 3 months (Krystal et al., 2019).
5. Insomnia should also be diagnosed if the sleep problem is not better explained as a symptom of a medical condition, mental disorder, or the effects of a substance use disorder. As well as if the sleep problem is not better explained by another sleep disorder.

For an insomnia diagnosis to be made, the care provider should assess the following issues;

1. History of insomnia symptoms and past treatments
2. Current sleep complaints
3. The patient's history of other sleep disorders
4. Their general schedule of sleep

5. Sleep hygiene factors particularly exercise, caffeine intake, and the sleep environment
6. Psychiatric & medical history
7. Current medications
8. Any evident sleep deprivation-related symptoms such as frustrations, stress or anxiety

On top of that, the care providers are recommended to apply the following criteria when determining whether it is appropriate for a certain patient to be prescribed CBT for insomnia:

1. A patient diagnosed with insomnia comorbid with other psychiatric conditions such as depression.
2. A patient on sleep medications and the medications have not resulted in any significant improvement of the patient's condition. In such a case, the patient should exclusively be prescribed CBT or in combination with the medications.
3. A patient who demonstrates motivation towards adhering to the CBT sessions.
4. A patient has the adequate intellect to benefit from CBT.
5. The patient is an adult.

Sleep restriction, which is a component of CBT for insomnia, should be avoided among patients who have insomnia comorbid with; seizure disorder, parasomnias, untreated sleep apnea, and bipolar disorder (Krystal et al., 2019).

### **Recommended Organizational Policies**

Apart from the listed practice guidelines and protocols that are intended to ensure that CBT for insomnia is effectively utilized among the affected patients, the healthcare organization should also formulate and adopt several policies that will safeguard the adoption of CBT as the first-line treatment for insomnia in the facility. One of the issues that the facility's management should consider is staffing. Compared to prescribing medications, the CBT intervention requires a higher number of psychiatry mental health nurse practitioners and psychiatrists for it to be applied effectively since it requires routine face-to-face schedules that last between 30 to 60 minutes for a period up to 20 weeks (Ringle et al., 2015). This is unlike prescribing medications, where the care providers' input is only required during the initial diagnosis and prescription, as well as follow-up checkups that are spread apart. Furthermore, since the existing organizational culture of the facility is biased against CBT in preference of medications, the management team could provide routine educational sessions in the form of conferences and seminars, where the providers will be reminded about the benefits of CBT for insomnia, the appropriate strategy for prescribing it, as well as the strategies of assessing the patients' responsiveness to it. Continuous learning will ensure that the treatment is fully adopted in the long term and that the care providers have optimum competence regarding its effective application (Ringle et al., 2015). Lastly, considering that in the modern-day mental healthcare, CBT provision has integrated technological advancements in the form of Tele-CBT, where the intervention is virtual administered to patients at their location of convenience, using mobile phone applications, the

organization's administration would need to allocate resources to facilitate the purchase and setting of the necessary equipment and technologies in order to ensure that the emerging approach for CBT is also adopted in the facility (Gratzer et al., 2018). This approach optimizes the convenience to the patient, hence, enhancing their likelihood to adhere to prescribed schedules for CBT.

### **Strength and Limitations of the Project**

One of the main strengths of the project is the level of collaboration between the doctoral student and the various parties involved in the project, particularly the participants of the education program. The participants responded to all the segments of the surveys and actively took part in the entire education session. The high level of participation ensured that the education program attained optimum levels of enlightenment as well as ensured that their knowledge and attitudes towards CBT for insomnia were accurately captured. Furthermore, the facility's management adequately facilitated the project by permitting the providers to take part in the education program. The clinic staff also provided a projector for the presentation and allocated the boardroom as a convenient venue for the education session.

However, despite the cited strengths, the project was also characterized by several limitations. Due to time constraints, the education session was provided in 40 minutes, which was the maximum time limit provided by the administration because of the tight shifts. A greater time allocation would have been beneficial to ensure that the presentation contained more information. Lastly, another limitation is that only 5 care providers volunteered to participate in the project. The small number of participants

means that the outcomes of the project, particularly the results of the preintervention and postintervention surveys, might not reflect the trends of a bigger sample size. Therefore, as much as several factors facilitated the project, some dynamics limited its undertaking.

## Section 5: Dissemination Plan

### **Dissemination to the Psychiatric Clinic**

Dissemination entails the process in which project findings reach the relevant persons or institutions that can make use of them, to adopt the recommendations and improve the provision of healthcare (Ashcraft et al., 2020). In the case of this project, the dissemination will target the healthcare facility in which the project took place. There is a need to disseminate the findings to the healthcare facility because the doctoral project has empirically ascertained that the facility is characterized by a gap in practice regarding the treatment of chronic insomnia among adults. This is because, as deduced from the findings, the current practice which entails the use of medications for chronic insomnia is associated with negative outcomes such as sedation, dependence, tolerance, and diminished chances of full remission (Park et al., 2018). Hence, the dissemination will be crucial in facilitating a change in practice, in which CBT for insomnia will be adopted as the first-line intervention since it significantly increases an individual's chances of full remission, and it is not characterized with any major side effects (Mitchell et al., 2015). Therefore, by effectively disseminating the findings of the doctoral project to the healthcare facility of interest, the project will have attained its primary objective of enhancing the quality of treatment provided to patients diagnosed with insomnia. The following are the components of the dissemination plan:

1. **Objective:** The primary objective of the dissemination process is to trigger a change in practice in which the psychiatric health professionals in the facility



adopt CBT as the first-line treatment of chronic insomnia, marking a shift from the current practice in which medication is the preferred treatment.

2. **Audience:** The dissemination will target the psychiatric care providers and the organization's management. The care providers will be informed of how the results of the empirical project necessitate a change in practice. The dissemination will assist in persuading the organization's management to provide the necessary resources that will facilitate the adoption of CBT as the preferred treatment for chronic insomnia among patients care for in the facility.
3. **Format:** The findings will be disseminated in the form of posters which will be availed at the facility's noticeboard and website. A PowerPoint presentation highlighting the project results will be prepared and presented during the hospital's board meeting, which will be held virtually.
4. **Timeline:** Tentatively, the PowerPoint presentation will be conducted on 2<sup>nd</sup> May 2021, when the board meeting will be held, while the posters will be provided on the noticeboard and facility's website before the board meeting is held.
5. **Resources:** No major resources will be required since a significant portion of dissemination will be virtual.

### **Dissemination to the Broader Nursing Profession**

The dissemination process will not only target the healthcare facility of interest but also the larger nursing profession. It will target the larger nursing profession because

insomnia is a major public health challenge in the country, considering that, annually, it develops in 1 in 4 Americans (CDC, 2019). It is also a risk factor for the onset of psychiatric conditions such as anxiety disorders and depression, as well as chronic illnesses like obesity, diabetes, and cardiovascular disease (Cunnington et al., 2013). Hence, there is adequate evidence to indicate that insomnia is a major public health challenge in the US, which necessitates effective nursing interventions. Therefore, the dissemination of the empirical results to the larger nursing profession, regarding the advantages of prescribing CBT for chronic insomnia, will play a crucial role in ensuring that the sleep disorder is more effectively managed by the frontline care providers and the outcomes of the affected patients are improved.

One of the ways of ensuring that the findings are disseminated to the broader nursing profession is by publishing the doctoral project report in the form of a journal article. The Journal of Nursing Research is an open-access journal, which means that it will attract a broader readership. Furthermore, another advantage is that it is recognized by most nursing schools, because it is dedicated towards furthering nursing science, improving nursing practice and patient outcomes through research. The publication will also be posted on the American Psychiatric Nurses Association's website, which has a resource center in which any empirical project or research relevant to psychiatric nursing can be published. The doctoral student will request to make a presentation during one of the webinars initiated by the APNA. In addition, a presentation will be made during the 118<sup>th</sup> Annual Convention of Maryland Nurses Association, which will be held virtually from 12<sup>th</sup> to 14<sup>th</sup> July. Furthermore, the doctoral student will also ensure that the doctoral

project findings reach the broader nursing profession by uploading posters onto various social media pages relevant to nurses. Particularly the following Twitter pages; @myamericannurse (which is the official page of the American Nurses Association), @AAN\_Nursing (the official page of the American Academy of Nursing), @NationalNurses (the official page of the union of Registered Nurses).

### **Analysis of Self**

#### **As a Practitioner**

As a nursing practitioner, the doctoral project has been very beneficial to me in several ways. To start with, the project will improve the quality of care I provide to patients with insomnia. I have established that there are several empirical study findings that indicate CBT has a significant advantage when prescribed for insomnia compared to medications. Prior to the project, I used to prefer medications because they provide a "quick fix" for addressing insomnia. However, I am now enlightened that despite having a rapid impact in managing insomnia symptoms, medications do not intervene on the underlying causes of chronic insomnia, and this exposes the patient to the risk of dependence and tolerance. In addition, there are side effects such as sedation and drowsiness, which affect an individual's overall productivity alongside the risk of falls and machine-related accidents. Therefore, the doctoral project will have a direct impact in improving the outcomes of patients who present to me with complaints of insomnia.

#### **As a Scholar**

As indicated by Conard and Pape (2016), the modern-day nursing profession is founded on scientific research. The doctoral project made me appreciate the accuracy of

the two scholar's statement since I have established that it is possible to solve most practice-related challenges if adequate research is conducted. Hence, continued nursing research ensures that evidence-based practice is implemented because the research facilitates the adoption of emerging science into practice. Through research, one can evaluate and compare the recommendations of various nursing scholars. Hence, the doctoral project has encouraged me to embark on continued nursing education to ensure that my skills and knowledge remain relevant or responsive to the emerging healthcare needs, especially at a time the country's demography is becoming more diverse, which means that various demographic/socioeconomic groups require more specific or more unique nursing interventions. Thus, by embarking on continued learning, I will remain informed of the emerging healthcare delivery trends, particularly in terms of patients' needs, emerging interventions, and the latest medical and technological advancements.

### **As a Project Manager**

As the project leader, the doctoral project enabled me to apply various leadership and critical thinking skills in solving a healthcare challenge. For instance, the project presents an opportunity in which I applied effective communication skills in engaging various stakeholders, particularly the care providers and the healthcare organization's administration. I applied effective communication skills in persuading the stakeholders about the significance of the doctoral project in enhancing the quality of psychiatric care provided in the facility. This also helped me gain their support and collaboration. The doctoral project has also made me become more appreciative of being organized. In this case, I am cognizant of the need to have timelines and strictly adhere to them. Timelines

have ensured that all the project's milestones are attained on time. A timeline has ensured that too much time is not spent on one section at the expense of other segments. In addition, I have also appreciated the importance of having a checklist when undertaking any major task. A checklist ensures that all components are attended to. Therefore, the doctoral project presents an opportunity in which I applied various leadership/managerial skills, and I am looking forward to utilizing the acquired skills in any other leadership position delegated to me in the course my practice.

### **Challenges, Solutions, and Insights Gained on The Scholarly Journey**

The scholarly journey has been enlightening but filled with several obstacles at the same time. The main challenge encountered when undertaking the project is time constraints. I had to conduct a thorough literature review and engage many stakeholders, in addition to attending to my practice duties. The time constraints left me with limited free time since I was primarily focused on my academics and practice. However, during the project, I realized that effective time management is crucial in ensuring that all duties and responsibilities are attended to. Hence, I came up with a checklist as well as a timeline to ensure that on each day I undertook a given section. On top of that, the unavailability of some of the resources required when undertaking the project was also another challenge. For instance, a projector was required during the provision of the care providers' education program. However, despite lacking access to the device, I was strategic in identifying a stakeholder who could provide the item. This challenge enlightened me of the need for collaboration when one is undertaking a task that touches on various parties or multidisciplinary players. I have realized the importance of

collaborating with various stakeholders and lobbying for resources. I will apply the skills gained from lobbying when advocating for the needs of patients to the relevant decision-makers and interdisciplinary teams. Furthermore, since I have learned the importance of engaging diverse stakeholders, I will strive to take part in various decision-making platforms, such as hospital boards. I am also inspired to become an active member of nursing professional organizations. This will ensure that I brainstorm with various parties and have input when policies are being formulated.

### **Summary**

In the modern-day, the nursing profession is founded on scientific research. Research ensures that the preferred or standard interventions are responsive to the existing healthcare delivery needs. Thus, preventing a scenario in which a certain nursing intervention becomes obsolete or unresponsive to the current demands. The doctoral project was in line with the concept of implementing research into practice since it aimed at resolving a practice challenge, through an analysis of the existing evidence. After the analysis of evidence, the doctoral student then focused on educating other care providers about the recommendations deduced from the cited studies. Therefore, the doctoral project plays a crucial role in ensuring the sustained growth of nursing practice by facilitating the adoption of emerging evidence into the practice.



## References

- Adu-Gyamfi, S., & Anderson, E. (2019). Indigenous Medicine and Traditional Healing in Africa: a Systematic Synthesis of the Literature. *Evolution and Development of Indigenous and Traditional Medical Practices in Africa*. [https://www.researchgate.net/publication/334974143\\_Indigenous\\_Medicine\\_and\\_Traditional\\_Healing\\_in\\_Africa\\_a\\_Systematic\\_Synthesis\\_of\\_the\\_Literature](https://www.researchgate.net/publication/334974143_Indigenous_Medicine_and_Traditional_Healing_in_Africa_a_Systematic_Synthesis_of_the_Literature)
- Ashcraft, L. E., Quinn, D. A., & Brownson, R. C. (2020). Strategies for effective dissemination of research to United States policymakers: A systematic review. *Implementation Science*, 15(1).<https://doi.org/10.1186/s13012-020-01046-3>
- Bazargan, M., Mian, N., Cobb, S., Vargas, R., & Assari, S. (2019). Insomnia symptoms among African-American older adults in economically disadvantaged areas of south Los Angeles. *Journal of Brain Sciences*, 9(11), 306. <https://doi.org/10.3390/brainsci9110306>
- Buysse, D. J., Germain, A., Hall, M., Monk, T. H., & Nofzinger, E. A. (2011). A neurobiological model of insomnia. *The Journal Disease Models*, 8(4), 129-137.<https://doi.org/10.1016/j.ddmod.2011.07.002>
- Centers for Disease Control and Prevention. (2019, March 5). *Data and statistics*. [https://www.cdc.gov/sleep/data\\_statistics.html](https://www.cdc.gov/sleep/data_statistics.html)
- Conard, P. L., & Pape, T. (2016). Roles and Responsibilities of the Nursing Scholar. *The*



*Journal of Pediatric Nursing*, 40(2).

<https://www.researchgate.net/publication/263289993>

Crawford, C. (2015). Johns Hopkins nursing evidence-based practice model and guidelines. *Journal of Association of Perioperative Registered Nurses*, 89(2), 426.

[https://doi.org/10.1016/s0001-2092\(09\)00182-3](https://doi.org/10.1016/s0001-2092(09)00182-3)

Cui, R., & Fiske, A. (2019). Predictors of treatment attendance and adherence to treatment recommendations among individuals receiving cognitive behavioral therapy for insomnia. *Cognitive Behaviour Therapy*, 49(2), 113-119.

<https://doi.org/10.1080/16506073.2019.1586992>

Cunnington, D., Junge, M. F., & Fernando, A. T. (2013). Insomnia: Prevalence, consequences and effective treatment. *Medical Journal of*

*Australia*, 199(8). <https://doi.org/10.5694/mja13.10718>

Feng, G., Han, M., Li, X., Geng, L., & Miao, Y. (2020). The Clinical Effectiveness of Cognitive Behavioral Therapy for Patients with Insomnia and Depression: A Systematic Review and Meta-Analysis. *The Journal of Evidence Based*

*Complementary and Alternative Medicine*. <https://doi.org/10.1155/2020/8071821>

Gratzer, D., Khan, S. K., & Balasingham, S. (2018). The Internet and CBT: A New Clinical Application of an Effective Therapy. In *Cognitive Behavioral Therapy*

*and Clinical Applications*. <https://doi.org/10.5772/intechopen.72146>

Hussain, S. T., Lei, S., Akram, T., Haider, M. J., Hussain, S. H., & Ali, M. (2018). Kurt Lewin's change model: A critical review of the role of leadership in

organizational change. *Journal of Innovation & Knowledge*, 3(3), 123-127.

<https://doi.org/10.1016/j.jik.2016.07.002>

Jacobs, G. D., Pace-Schott, E. F., & Stickgold, R. (2017). Cognitive Behavior Therapy and Pharmacotherapy for Insomnia. *Journal of the American Medical Association*, *164*(17), 1888-1896. <https://doi.org/10.1001/archinte.164.17.1888>

Khurshid, K. A. (2018). Comorbid Insomnia and Psychiatric Disorders. *Innovations in Clinical Neuroscience*, *15*(4), 28–32.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5906087/>

Koffel, E., & Hagedorn, H. (2020). Provider perspectives of implementation of an evidence-based insomnia treatment in veterans affairs (V.A.) primary care: Barriers, existing strategies, and future directions. *Implementation Science Communications*, *1*(1). <https://doi.org/10.1186/s43058-020-00096-4>

Koffel, E., Bramoweth, A. D., & Ulmer, C. S. (2018). Increasing access to and utilization of cognitive behavioral therapy for insomnia (CBT-I): A narrative review. *Journal of General Internal Medicine*, *33*(6), 955-962. <https://doi.org/10.1007/s11606-018-4390-1>

Krystal, A. D., Prather, A. A., & Ashbrook, L. H. (2019). The assessment and management of insomnia: An update. *Journal of the World Psychiatric Association*, *18*(3), 337-352. <https://doi.org/10.1002/wps.20674>

Majendie, C. M., Dysch, L., & Carrigan, N. (2016). Cognitive behavioral therapy for insomnia (CBT-I) for an adult with multiple sclerosis. *Clinical Case Studies*, *16*(2), 115-131. <https://doi.org/10.1177/1534650116674594>

Matheson, E., & Hainer, B. L. (2017). Insomnia: Pharmacologic Therapy. *American*

*Family Physician Journal*, 96(1), 29-35.

<https://www.aafp.org/afp/2017/0701/p29.html>

Meyer, J. C., Nhira, S., & Chigome, A. (2018). An overview of insomnia and its management. *Pharmaceutical Journal*, 85(2), 32-38.

[https://www.researchgate.net/publication/325882954\\_An\\_overview\\_of\\_insomnia\\_and\\_its\\_management](https://www.researchgate.net/publication/325882954_An_overview_of_insomnia_and_its_management)

Mitchell, M. D., Gehrman, P., Perlis, M., & Umscheid, C. A. (2015). Comparative effectiveness of cognitive behavioral therapy for insomnia: A systematic review. *Biomed*, 12(1), 80-89. <https://doi.org/10.1176/appi.focus.12.1.80>

Morin, C. M. (2020). Cognitive behavioural therapy for insomnia (CBTi): From randomized controlled trials to practice guidelines to implementation in clinical practice. *Journal of Sleep Research*, 29(2). <https://doi.org/10.1111/jsr.13017>

Morin, C. M., Vallières, A., Guay, B., Ivers, H., Savard, J., Mérette, C., Bastien, C., & Baillargeon, L. (2019). Cognitive-Behavior Therapy, Singly and Combined with Medication, for Persistent Insomnia: Acute and Maintenance Therapeutic Effects. *Journal of American Medical Association*, 301(19), 2005–2015. <https://doi.org/10.1001/jama.2019.682>

Park, K. M., Kim, T. H., Kim, W. J., An, S. K., Namkoong, K., & Lee, E. (2018). Cognitive behavioral therapy for insomnia reduces hypnotic prescriptions. *Psychiatry Investigation*, 15(5), 499-504. <https://doi.org/10.30773/pi.2017.11.20>

Pchelina, P. V., Tabidze, A. A., & Poluekotov, M. G. (2018). A comparative study of the

- efficacy of cognitive behavioral therapy and Zopiclone in chronic insomnia. *Neuroscience and Behavioral Physiology*, 49(1), 38-44. <https://doi.org/10.1007/s11055-018-0688-z>
- Perlis, M. L., Smith, M. T., Jungquist, C. R., & Nowakowski, S. (2018). Cognitive-Behavioral Therapy for Insomnia. In *Clinical Handbook of Insomnia* (pp. 281-296). DOI:10.1007/978-1-60327-042-7\_22
- Petiprin, A. (2019, August 13). *Lewin's change theory*. Nursing Theory. <https://nursing-theory.org/theories-and-models/lewin-change-theory.php>
- Qaseem, A., Kansagara, D., Forcica, M. A., Cooke, M., & Denberg, T. D. (2016). Management of chronic insomnia disorder in adults: A clinical practice guideline from the American College of Physicians. *Annals of Internal Medicine*, 165(2), 125. <https://doi.org/10.7326/m15-2175>
- Ringle, V. A., Read, K. L., Edmunds, J. M., Brodman, D. M., Kendall, P. C., Barg, F., & Beidas, R. S. (2015). Barriers to and facilitators in the implementation of cognitive-behavioral therapy for youth anxiety in the community. *Psychiatric Services*, 66(9), 938-945. <https://doi.org/10.1176/appi.ps.201400134>
- Rios, P., Cardoso, R., Morra, D., Nincic, V., & Tricco, Z. (2019). Comparative effectiveness and safety of pharmacological and non-pharmacological interventions for insomnia: an overview of reviews. *BioMed Central*, 8(11). <https://systematicreviewsjournal.biomedcentral.com/articles/10.1186/s13643-019-1163-9>
- Sandlund, C., Hetta, J., Nilsson, G. H., Ekstedt, M., & Westman, J. (2017). Improving

insomnia in primary care patients: A randomized controlled trial of nurse-led group treatment. *International Journal of Nursing Studies*, 72, 30-41.

<https://doi.org/10.1016/j.ijnurstu.2017.03.007>

Straten, A. V., Zweerde, T. V., Kleiboer, A., Cuijpers, P., Morin, C. M., & Lancee, J. (2017). Cognitive and behavioral therapies in the treatment of insomnia: A meta-analysis. *Sleep Medicine Reviews*, 1(14).

<http://dx.doi.org/10.1016/j.smr.2017.02.001>

Taddei-Allen, P. T. (2020). Economic burden and managed care considerations for the treatment of insomnia. *The American Journal of Managed Care*, 26(4), 91-96.

<https://doi.org/10.37765/ajmc.2020.43008>

Taylor, D. J., & Pruiksma, K. E. (2016). Cognitive and behavioural therapy for insomnia (CBT-I) in psychiatric populations: A systematic review. *International Review of Psychiatry*, 26(2), 205-213.

<https://doi.org/10.3109/09540261.2016.902808>

Wade, A. (2010). The societal costs of insomnia. *Neuropsychiatric Disease and Treatment*, 7, 1-18.

<https://doi.org/10.2147/ndt.s15123>

Wojciechowski, E., Pearsall, T., Murphy, P., & French, E. (2016). A Case Review: Integrating Lewin's Theory with Lean's System Approach for Change. *Journal of the American Nurses Association*, 21(2).

<https://ojin.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol-21-2016/No2-May-2016/Integrating-Lewins-Theory-with-Leans-System-Approach.html>

Wong, B. M., Shen, D. D., Tu, K. N., & Lie, J. D. (2015). Pharmacological Treatment of

Insomnia. *Journal of Pharmacy and Therapeutics*, 40(11), 759-768.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4634348/>

## Appendix A: Pretest Survey

**Please complete by filling in the blanks or circling your response.**

**Please create a unique identifier to be used on this pre-test and the post-test:**

**Unique Identifier: Initials with four code letters: \_\_\_\_\_**

1. What is your age? \_\_\_\_\_
2. What is your gender? \_\_\_\_\_
3. Are you experienced in treating sleep disorders?
  - a. Yes
  - b. No
4. What would you administer to a patient who complains of sleep difficulties for at least 6 months?
  - a. Benzodiazepines
  - b. Ambien
  - c. Cognitive behavioral therapy
  - d. Behavioral therapy
  - e. Other (please list)
  - f. I do not know
5. Have you ever prescribed CBT to any of your patients with insomnia?
  - a. Yes
  - b. No

6. Which is the most appropriate duration for prescribing CBT sessions to a patient with insomnia?
  - a. 3 weeks
  - b. 6 weeks
  - c. 6 months
  - d. 1 year
  - e. I do not know
7. How should CBT sessions for insomnia be scheduled per week?
  - a. 40 minutes daily
  - b. 40 minutes once per week
  - c. 40 minutes on each weekday
  - c. Once per month for 2 hours
  - d. I do not know
8. In your opinion, does CBT improve the sleep outcomes of patients as well as the quality of their daytime functioning, compared to medications?
  - a. Yes
  - b. No
  - c. I do not know
9. Does CBT for insomnia address a patient's worries, concerns, and fears regarding inadequate sleep as well as its impact on their daytime functioning?



- a. Yes, CBT adequately intervenes on the underlying cause of insomnia. Hence, it permanently alters or eliminates all the behavioral or thoughts patterns that could be attributed for sleep disruption.
- b. No, CBT only temporarily suppresses the poor sleep habits, but it does not permanently eliminate the root causes.

10. Will you be willing to prescribe CBT for insomnia to your clients?

---

What consideration influences your preference for CBT

- a. It is not characterized by major side effects
- b. It increases the chances of full remission
- c. It is highly recommended by various agencies and medical professional organizations

## Appendix B: Posttest Survey

**Please complete by filling in the blanks or circling your response.**

**Please fill in the unique identifier you used for the pre-test:**

**Unique Identifier: Initials with four code letters: \_\_\_\_\_**

1. After attending the education, what would you administer to a patient who complains of sleep difficulties for at least 6 months?
  - a. Benzodiazepines
  - b. Ambien
  - c. Cognitive behavioral therapy
  - d. Behavioral therapy
  - e. Other (please list)
  - f. I do not know
  
2. Which is the most appropriate duration for prescribing CBT sessions to a patient with insomnia?
  - a. 3 weeks
  - b. 6 weeks
  - c. 6 months
  - d. 1 year
  - e. I do not know
  
3. How should CBT sessions for insomnia be scheduled per week?
  - a. 40 minutes daily

- b. 40 minutes once per week
  - c. 40 minutes on each weekday
  - c. Once per month for 2 hours
  - d. I do not know
4. After attending the class, does CBT improve the sleep outcomes of patients as well as the quality of their daytime functioning, compared to medications?
- a. Yes
  - b. No
  - c. I do not know
5. Does CBT for insomnia address a patient's worries, concerns, and fears regarding inadequate sleep as well as its impact on their daytime functioning?
- a. Yes, CBT adequately intervenes on the underlying cause of insomnia. Hence, it permanently alters or eliminates all the behavioral or thoughts patterns that could be attributed for sleep disruption.
  - b. No, CBT only temporarily suppresses the poor sleep habits, but it does not permanently eliminate the root causes.
6. Will you be willing to prescribe CBT for insomnia to your clients?
- \_\_\_\_\_
7. What consideration influenced your preference for CBT
- a. It is not characterized by major side effects

- b. It increases the chances of full remission
- c. It is highly recommended by various agencies and medical professional organization

## Appendix C: Provider Education PowerPoint Presentation



# The Advantages of Prescribing CBT for Insomnia Among Adults

Walden University

Oyeneyin Ayorinde

## Introduction

- 1 in 4 Americans develop insomnia.
  - Significant public health challenge in the country
  - Associated with excessive daytime sleepiness, which reduces productivity
  - Increased the risk of automobile accidents
  - Affects a person's general mental and physical wellness
- Insomnia can also have a role in the manifestation of chronic illnesses.

## Targeted Treatment

- Historically, insomnia was perceived as a symptom of other mental disorders.
  - Such as depression and chronic anxiety
- Current evidence indicates that it can either be a comorbid disorder or a primary illness.
  - Often persists even after treating the underlying primary condition (Park et al., 2018).
  - Requires targeted treatment

## Why Insomnia Medications are preferred

- Medications are the most common treatments for insomnia.
  - Benzodiazepine receptor agonists.
- They are preferred due to;
  - Widespread availability
  - Ease of prescription
  - Instant capability to rapidly improve a patient's condition (Mitchell et al., 2015).
  - As well as due to patient's preferences, since medications do not necessitate time commitment unlike psychotherapy.

## Disadvantages of Insomnia Medications

- Despite hypnotics being productive in managing insomnia symptoms, they are characterized by significant side effects.
  - Unintended outcomes include; falls, confusion and sedation.
  - Risk of machine-related accidents, cognitive impairment, and impaired motor coordination (Park et al., 2018).
- Medications can result in dependence and tolerance.
  - Not curative
  - Can result in long-term treatment

## CBT as an Alternative

- CBT is an alternative treatment for insomnia.
  - Comprises several strategies that target the various factors attributed to the persistence of insomnia. Including:
    - Sleep-interfering behaviors, sleep-related anxiety, and the dysregulation of sleep drive
- CBT is highly efficacious since it modifies various behaviors and thought patterns that reinforce poor sleep.
  - Not associated with major side effects

## Agencies and Professional Organizations that Recommend CBT

- There are several federal agencies and healthcare professional organizations that recommend the use of CBT as the first-line treatment for insomnia.
  - The American College of Physicians (ACP)
  - The American Academy of Family Physicians (AAFP)
- The FDA also discourages the long-term use of insomnia medications and recommends other alternative treatments, if full remission is not attained within 7-10 weeks.



## Contextual Significance of Adopting CBT as the First-line Treatment for Insomnia

- African Americans account for 63% of Baltimore City population.
- Sleep disorders are more prevalent among the minority groups.
- This higher prevalence is attributed to various disparities.
  - Discrimination and financial difficulties result in depressive thoughts.
    - These stressors reduce the quality of sleep.
- The utilization of CBT would be of great significance in improving the sleep-related outcomes of vulnerable populations.

## The Outcomes of the Failure to Prescribe CBT for Insomnia in the Facility

- Sleep medications are predominantly used in the facility but they are less effective (Sandlund et al., 2017).
- Acute cases of insomnia have been developing into chronic conditions.
- The care providers prefer to prescribe Estazolam, Eszopiclone, Ramelteon, and Temazepam, as "quick fixes".
  - These drug-types can lead to dependence and tolerance (Matheson & Hainer, 2017).
  - The tolerance results in a scenario in which a treated patient returns to the facility after some period, complaining of the initial symptoms.

## Summary

- The facility predominantly attends to a population vulnerable to insomnia due to various healthcare and socioeconomic disparities.
- Medications are the main treatments for insomnia in the facility.
- Unfortunately, this treatment does not safeguard full remission, since it is a short-term intervention.
- Medications are characterized with significant side effects.
- CBT is a more efficacious alternative.

## References

- Koffel, E., Bramoweth, A. D., & Ulmer, C. S. (2018). Increasing access to and utilization of cognitive behavioral therapy for insomnia (CBT-I): A narrative review. *Journal of General Internal Medicine*, 33(6), 955-962. <https://doi.org/10.1007/s11606-018-4390-1>
- Matheson, E., & Hainer, B. L. (2017). Insomnia: Pharmacologic Therapy. *American Family Physician Journal*, 96(1), 29-35. <https://www.aafp.org/afp/2017/0701/p29.html>
- Mitchell, M. D., Gehrman, P., Perlis, M., & Umscheid, C. A. (2015). Comparative effectiveness of cognitive behavioral therapy for insomnia: A systematic review. *Biomed*, 12(1), 80-89. <https://doi.org/10.1176/appi.focus.12.1.80>
- Park, K. M., Kim, T. H., Kim, W. J., An, S. K., Namkoong, K., & Lee, E. (2018). Cognitive behavioral therapy for insomnia reduces hypnotic prescriptions. *Psychiatry Investigation*, 15(5), 499-504. <https://doi.org/10.30773/pi.2017.11.20>
- Sandlund, C., Hetta, J., Nilsson, G. H., Ekstedt, M., & Westman, J. (2017). Improving insomnia in primary care patients: A randomized controlled trial of nurse-led group treatment. *International Journal of Nursing Studies*, 72, 30-41. <https://doi.org/10.1016/j.ijnurstu.2017.03.007>

## Appendix D: Tables

**Table 1***Demographics of the Participants*

	Frequency (n)
Gender	
Male	2
Female	3
Age	
26 to 30	1
31 to 25	1
36 to 40	2
41 to 45	0
46 to 50	1
Over 50	0
Title	
MD/Psychiatrist	2
PMHNP	3

**Table 2***A Summary of the Pre/Postintervention Results*

Question No.	Question	Pre-test Survey (No. of Participants' Who Were Correct)	Post-test Survey (No. of Participants' Who Were Correct)
No. 4	Which is the most appropriate intervention for a patient who	2/5	4/5

	complains of sleep difficulties for at least 6 months?		
No. 6	Which is the most appropriate duration for prescribing CBT sessions to a patient with insomnia?	1/5	3/5
No. 7	How should CBT sessions for insomnia be scheduled per week?	2/5	3/5
No. 8	In your opinion, does CBT improve the sleep outcomes of patients as well as the quality of their daytime functioning, compared to medications?	3/5	4/5
No. 9	Does CBT for insomnia address a patient's worries, concerns, and fears regarding inadequate sleep as well as its impact on their daytime functioning?	3/5	5/5
	<b>Readiness to Prescribe CBT for Insomnia</b>	<b>Preintervention</b>	<b>Postintervention</b>
No. 10	Will you be willing to prescribe CBT for insomnia to your clients?	1/5	4/5