COGNITIVE BEHAVIORAL THERAPY FOR INSOMNIA, IMPROVING NON PHARMACOLOGICAL SLEEP RESOURCES IN A PRISON SETTING

by

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ABSTRACT

Problem Statement: While sleeping issues are widely present within the general population, insomnia rates can be as high as 61% within prison settings. The consequences of untreated insomnia in these settings can attribute to increases in irritability, impulsiveness, anger, aggression, and overutilization of the prison health care system. Insomnia is known to increase the prevalence and severity of anxiety and depression, but it can also increase suicidality, suicide attempts, and suicide completions. The first line treatment method for insomnia is Cognitive Behavioral Therapy for Insomnia (CBT-I). Implementation of Cognitive Behavioral Therapy for Insomnia has the potential to decrease the prescription of sleeping medications in this setting as patients experience symptom reduction and remission from insomnia and no longer need medication treatment. **Methods:** A clinical practice guideline suggesting the addition of Cognitive Behavioral Therapy for Insomnia video resources to the inmate electronic tablet system was presented to multiple stakeholders within the organization. Qualitative feedback was gathered and analyzed following this presentation. **Results:** Feedback was organized into 8 themes; limited barriers to implementation, validation of issues with the current process, language changes to be made, initiating implementation at the facility's intake unit, the potential increase in patient trust and autonomy, the referral process and accessibility, feedback reports, and future directions. **Conclusions:** This guideline would be edited to include feedback provided by stakeholders, then evaluated again using the AGREE-II tool before it would be implemented.

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CHAPTER ONE

REVIEW OF THE LITERATURE

Introduction

Insomnia's definition according to the American Psychiatric Association is the difficulty "initiating, maintaining, or experiencing non-restorative sleep concurrent with distress or impairment in critical areas of everyday functioning, such as increased daytime fatigue, negative mood, and poor concentration" (McCrae et al., 2018). This definition explains the functional impacts insomnia can cause an individual to experience, but how does insomnia arise? The Behavioral Model of Insomnia focuses on predisposing, precipitating, and perpetuating factors involved in this condition (Canas-Simião & Kisand, 2020; Martin et al., 2022). Some examples of predisposing factors are chronic co-morbidities, biologic risk, and early life experiences (Martin et al., 2022). Precipitating factors are things like traumatic events, changes in social domains, illness, stress, drug use, shift work, or injury (Canas-Simião & Kisand, 2020; Martin et al., 2022). Perpetuating factors encourage ongoing sleep problems, some examples are poor sleep hygiene, inappropriate association of the bedroom and non-sleep activities, and psychologic conditioning The Cognitive Model of insomnia focuses on the connection of the bedroom with things other than sleep and sex (Martin et al., 2022). Instead, the bed is associated with emotional distress, alertness, and autonomic arousal that can only be fixed if these thoughts are "unlearned".

There are two phases of insomnia, acute and chronic. Acute insomnia occurs within the first 3 months of showing symptoms. The main predictors of a person transitioning from acute

insomnia to chronic insomnia are the presence of perpetuating factors (Ellis et al., 2015). Chronic insomnia is worse in terms of severity and lasts longer than 3 months. In one study, insomnia was still prevalent in 46% of participants, 3 years after diagnosis. This condition is long-lasting and unrelenting. It is estimated that chronic insomnia costs $13.9 billion annually in direct costs. Chronic insomnia increases the risk of depression twofold, as well as cognitive decline in older men (>65), worsening co-morbid illnesses, and additive effects on mood (Ellis et al., 2015; McCrae et al., 2018; Randall et al., 2019). Older adults, those over the age of 65, are more at risk of insomnia symptoms such as difficulties staying asleep throughout the night and waking up too early in the morning. It has been shown that 20-50% of this age group are impacted by insomnia (McCrae et al., 2018).

Clinical Problem Statement

The population of focus for this quality improvement project is prisoners experiencing insomnia symptoms and diagnosis. Insomnia rates in the prison setting are as prevalent as 61% with women being far more likely to report symptoms than males (Randall et al., 2019). In this population the use of anxiolytic and hypnotic medications to treat insomnia is ten times higher than that of the general population (Randall et al., 2019). The consequences of untreated insomnia in these settings can attribute to increases in irritability, impulsiveness, anger, aggression, and overutilization of the prison health care system. Insomnia is known to increase the prevalence and severity of anxiety and depression, but it can also increase suicidality, suicide attempts, and suicide completions in prisons and the general population (Randall et al., 2019). Imprisonment itself can be viewed as a predisposing factor of insomnia. Patients in this setting usually have high rates of substance use and mental health co-morbidities added onto the stress

of sentencing, which may precipitate insomnia (Randall et al., 2019). These individuals have been taken away from loved ones because of their sentencing, they are experiencing new rules, less privacy, limited access to sunlight and recreation, and it can be assumed that they may also be concerned for their own safety, all contributing factors to insomnia (Randall et al., 2019). Insomnia may be perpetuated in this group because they cannot only use their bed for sleep and sex, it is used for sitting, eating, reading, watching TV, and napping which may form arousal connections with this space (Randall et al., 2019).

Literature Review

In reviewing the literature on this topic, the databases CINAHL Complete, UpToDate, PsychInfo, and PubMed were used. Keywords used to search for research articles were insomnia, CBT-I, Cognitive Behavioral Therapy for Insomnia, prison, sleep aids, nonpharmacologic, chronic insomnia, acute insomnia, psychological, and sleeping medications. This resulted in 473 articles. Once duplications and topics not relevant to this quality improvement paper were removed 11 articles remained and were included in the full text review. The types of articles included are as follows: 5 randomized control trials, 1 systematic review, 2 meta-analyses, and 3 CBT-I informational resources and manuals. When reviewing the literature, the following themes emerged; CBT-I is the first line treatment for insomnia, CBT-I is effective as a "one shot" method, there is equal effectiveness between treatment modalities (online, groups, individually), and insomnia is a larger problem within the prison setting.

Insomnia can be treated with medications to aid sleep as well as through psychologic methodologies (Martin et al., 2022). One study shows that if given the choice adults are three times more likely to choose a psychological intervention over a pharmacologic one (McHugh et

al., 2013). Although this is often not the trend we see in clinical practice. The use of prescription medications is increasing, while the use of psychologic treatments is decreasing (McHugh et al., 2013). In the long-term, following the patient's preferred treatment methods leads to better adherence and better outcomes.

Although within the prison setting, medications may be of higher preference than psychological methodologies of treating insomnia, this population is more accustomed to taking medications as a solution to a mental or physical problem (Dewa, 2017). Medications often used for sleep are benzodiazepines, hypnotics ("Z-drugs"), "off label" medications such as antidepressants and antipsychotics, and antihistamines (Dewa, 2017). Hypnotic medications and benzodiazepines are recommended to be used only short-term, a maximum of four weeks (Dewa, 2017). Long-term use of these medications increases the risk of drug overdose, tolerance to the medication, dependence on the medication, and rebound insomnia and withdrawals if stopped suddenly (Dewa, 2017). In this population there are high risks of these medications being traded, sold, or misused (Dewa, 2017). Misuse of these medications impacts the ability of providers to prescribe according to community guidelines and can lead to insomnia going untreated. There is a large preference for the use of antidepressants and antipsychotics as sleep aids due to their sedative effects (Dewa, 2017). Over time this can be damaging to the physical and mental health needs of these individuals. While supplements like melatonin are available, they are not likely to affect insomnia symptoms long-term (Dewa, 2017). Practice recommendations for this population encourage the use of self-management strategies and psychological therapies such as Cognitive Behavioral Therapy for Insomnia (CBT-I) before the prescription of medications. This

nonpharmacologic therapy aims to identify the maladaptive and conditioned factors that sustain insomnia symptoms (Martin et al., 2022).

Cognitive Behavioral Therapy for Insomnia is currently the first line treatment for this condition in all ages (Canas-Simião & Kisand, 2020; Ellis et al., 2015; McCrae et al., 2018). This treatment is effective even in those with physical and mental co-morbidities (Boullin et al., 2016; Ellis et al., 2015). Hypnotic medication use often negatively affects CBT-I treatment and does not enhance treatment benefits (Martin et al., 2022). If first line CBT-I treatment is not effective, medications are considered as adjunctive therapy (Martin et al., 2022). There are multiple components of CBT-I treatment, and they are conducted in a variety of differing modalities. The first topic is psychoeducation, patients are taught about sleep drive, normal sleep patterns, circadian rhythms, physical and cognitive arousal, as well as sleep hygiene (Canas-Simião & Kisand, 2020; Martin et al., 2022). Another component of CBT-I is sleep restriction therapy, this is the concept of limiting time in bed if the patient is laying there unable to fall asleep (Canas-Simião & Kisand, 2020). There are a few precautions to keep in mind regarding sleep restriction. If the patient has bipolar disorder that is poorly treated this practice could perpetuate a manic episode, it is also avoided in those with poorly controlled seizure disorders, or an acute change in their health status (Martin et al., 2022). Sleep compression is a safer alternative for this population. Next, stimulus control therapy is used to reframe behaviors in the bedroom as well as setting an appropriate sleep-wake schedule (Canas-Simião & Kisand, 2020). The cognitive aspect of CBT-I is focused on addressing negative and maladaptive thoughts around sleep (Canas-Simião & Kisand, 2020; Martin et al., 2022). Some techniques used are challenging negative thoughts around sleep and replacing them with a new more appropriate thought, as well

as constructing a scheduled worry time at least 3 hours before sleep (McQuaid et al., 2021). The last technique is relaxation training where patients are trained to use progressive muscle relaxation, mindfulness techniques, and the technique of diaphragmatic breathing (Canas-Simião & Kisand, 2020; Martin et al., 2022).

CBT-I treatment can be offered and administered face-to-face, individually, in a group, or even digitally. CBT-I can be conducted over 8 sessions, briefer versions conducted in one to four sessions, or even in a single "one-shot" session. When comparing individual and group treatment they were found to be equal in terms of effect (Boullin et al., 2016). Group CBT-I allows for widespread use of this technique to a greater amount of people and is another CBT-I treatment option for interested participants. The use of internet-based CBT-I has also been studied. This treatment version was shown to be effective in improving sleep related variables as well as guiding patients into remission from insomnia (Ritterband et al., 2009). Both internet based and "one-shot" treatment options are more easily assessed, and inexpensive options for many patients (Randall et al., 2019; Ritterband et al., 2009). More intensive and lengthy CBT-I modalities would be more available to those who require more intensive care. CBT-I has also been shown effective in decreasing symptoms of anxiety and depression (Ballesio et al., 2021; Boullin et al., 2016; Martin et al., 2022; McCrae et al., 2018; Randall et al., 2019). CBT-I is also impactful in reducing repetitive negative thinking and the psychophysical arousal and emotional distress that come along with these thoughts (Ballesio et al., 2021).

Conclusion

The prevalence of insomnia in prison settings and the need for an effective non-pharmacological treatment option for this population is immense. CBT-I instruction can be minorly adjusted in this setting and is still shown to be greatly effective even when using the "one-shot" method (Randall et al., 2019). Improvement of anxiety, depression, and insomnia symptoms were shown with a remission rate of 73% at the one-month follow-up point after CBT-I initiation (Randall et al., 2019).

The implementation of Cognitive Behavioral Therapy for Insomnia in the prison setting would be invaluable. Decreasing insomnia prevalence as well as the severity of anxiety and depression would greatly impact quality of life in this patient population. Employing CBT-I also has the potential to increase prison safety by decreasing the insomnia consequences of anger, impulsivity, and aggression (Randall, Nowakowski, & Ellis, 2019). The safety of patients would also be improved as CBT-I can reduce suicidal ideation (Randall, Nowakowski, & Ellis, 2019). By implementing CBT-I video resources in this population, the need for prescription sleep aids would decrease as sleep quality and insomnia improves.

CHAPTER TWO

PROJECT PLAN AND PROTOCAL

Introduction and Problem

Insomnia is a condition that is exceedingly prevalent in the communities around us and is experienced at even higher levels within our prison populations. Increased rates of mental health disorders, substance abuse, and the stress of incarceration likely all are factors in the diagnosis and onset of insomnia (Randall et al., 2019). Insomnia in a corrections setting can lead to the consequences of increased suicidal ideation, suicide attempts, suicide completions, anger, aggression, impulsivity, and the increased use of health care resources (Randall et al., 2019). These factors impact the safety of prison staff, other inmates, and put the inmate in question at risk of harming themselves. Sleeping medications in this population are marked with warnings of abuse and misuse. Inmates often sell, trade, and inappropriately use these medications (Dewa, 2017). The first line treatment method for insomnia is Cognitive Behavioral Therapy for Insomnia (CBT-I). Implementation of CBT-I in this setting has the potential to decrease the prescription of sleeping medications as patients that utilize this treatment method experience symptom reduction and remission from insomnia (Randall et al., 2019).

Currently the practice setting in which this quality improvement project will be implemented is attempting to manage insomnia with only prescription medications and lacks other treatment options. Patients complain of insomnia yet do not take the medications they are prescribed to help with this due to odd administration times. These medications are not allowed to be kept with the inmates in their cells due to problems of misuse. Instead, they are

administered to the inmates by staff at 4pm in the more restricted units and at around 7pm in all the other units. When medication compliance is checked on a weekly basis, very few daily doses are self-administered yet insomnia is still a prevalent issue. Psychological treatments for sleep, such as CBT-I are needed in this population. While medication treatment for insomnia is often off label and has the risk of dependence as well as altering the normal sleep cycle, CBT-I treatment can lead to remission from symptoms as soon as one month after treatment, eliminating the need for long-term treatment medication use (Randall et al., 2019).

Problem Statement

Insomnia is currently treated with medications in this setting. Implementing CBT-I at this northwestern prison setting would be a first line treatment for insomnia. The CBT-I video resources can be added to the inmate's existing tablet system. The inmates then view the videos to utilize the therapy. These videos will teach the components on CBT-I that have been shown effective in reducing rates of insomnia.

Organizational Microsystem Assessment

The site of implementation for this quality improvement project is an all-male prison in the Northwest United States. This facility houses around 1,590 male inmates who are serving their sentence for various crimes committed. The site is composed of many units and external buildings. There are two units that are considered maximum security where medical and mental health assessments are completed within these units and medications are administered by nursing staff at the patient’s cell. Medications in these units are passed at around 4am, noon, and 4pm. Following this there are 7 units that have fewer restrictions and allow inmates to travel to the

infirmary for medical and mental health assessment. Within these units, inmates are allowed to keep medications that are considered to have a low abuse potential within their cells. For other medications with higher abuse potentials and personal danger, these medications are kept in a weekly pill organizer that is stored in a secure location on the unit and passed with officer supervision at 7am, noon, and 7pm. Included in these medication organizing boxes are sleeping medications and sleeping aids such as trazodone, mirtazapine, Seroquel, Benadryl, Vistaril, doxepin, amitriptyline, and nortriptyline. Medications with very high potential of abuse such as benzodiazepines are very rarely prescribed, and administration must be observed by nursing staff.

There are systematic issues that need to be acknowledged before implementing a quality improvement project within this setting. There is limited use of non-pharmacologic treatment methods that are considered first line and most effective in the treatment of insomnia, such as CBT-I. This is likely due to the limited availability of therapists to conduct psychological interventions and the frequency of prescribing medications as a solution to the medical and mental health needs of patients. Medications to aid in sleep may be effective within this setting but would likely work more efficiently if prescribed closer to a normal bedtime. The scheduling of evening medication administration is something that is unlikely to be adjusted. Data on outcomes regarding patient sleep are not routinely collected for this population. Costs of prescribing medications that patients do not adhere to is likely making an impact in the financial sector of this microsystem as these medications cannot be returned to the pharmacy and are often wasted and discarded. The performance of current treatments used for insomnia in this setting are inadequate and not fully effective.

Stakeholders in this organization see the need for quality improvement at the systems level. It is understood that changing the medication administration schedule is a solution that would take a lot of time to implement and would likely increase the use of pharmacological measures to treat insomnia. The availability of more non-medication treatment options is desired by mental health providers and medical administration. It was concluded that the creation of CBT-I video resources that could be added to patient tablets would be an impactful intervention.

Rationale

The quality improvement framework used to guide my practice change is the Donabedian Model. This model is composed of three components structure, process, and outcome. The structure section of this model evaluates the environment, policies, available resources, and characteristics of the organization. The process section examines the processes in place to care for patients, the available services, diagnostics, and treatments. The outcome section reviews how processes have affected the patients and the patient population. By understanding the organizational microsystem of the facility, more treatment modalities can be formulated to achieve the outcome of remission from insomnia symptoms and the decreased use of medication prescription for sleep.

There is a structural need for quality improvement in the treatment of sleeping problems and insomnia within this setting. Currently sleeping medications are prescribed and not being adhered to by patients as they are being administered as early as 4pm to some. The need for an evidence based non-pharmacologic treatment option is evident. The structure of this intervention will come in the form of a new resource being added to the already established Edovo tablet technology system. This resource will be in the form of multiple CBT-I videos containing

instructional and informational content pertinent to all CBT-I components. These videos will be recorded by the student with the use of already established CBT-I curriculum and resources. With the help of the content and curriculum designer for this technology system, these videos will be available for patient viewing when a tablet is checked out. At the end of the CBT-I series, a video satisfaction screen will appear for the inmate to anonymously select a satisfaction rating of 1-5 for this video. They may also skip the rating if they choose.

An electronic announcement will be made via the Edovo tablet system to ensure that inmates are aware of this new resource, and medical and mental health providers will also be encouraged to refer patients to and utilize this as a non-pharmacological treatment method. This announcement will occur the day before CBT-I video resources are launched as well as the day these resources are available for viewing. Inmates will have the ability to access these videos on their tablets daily, this will improve their daily sleep habits and attempt to correct maladaptive thoughts and behaviors related to sleep. Using the Donabedian model as a reference, the outcome of this process change is improved sleep quality and a decrease in insomnia symptom severity.

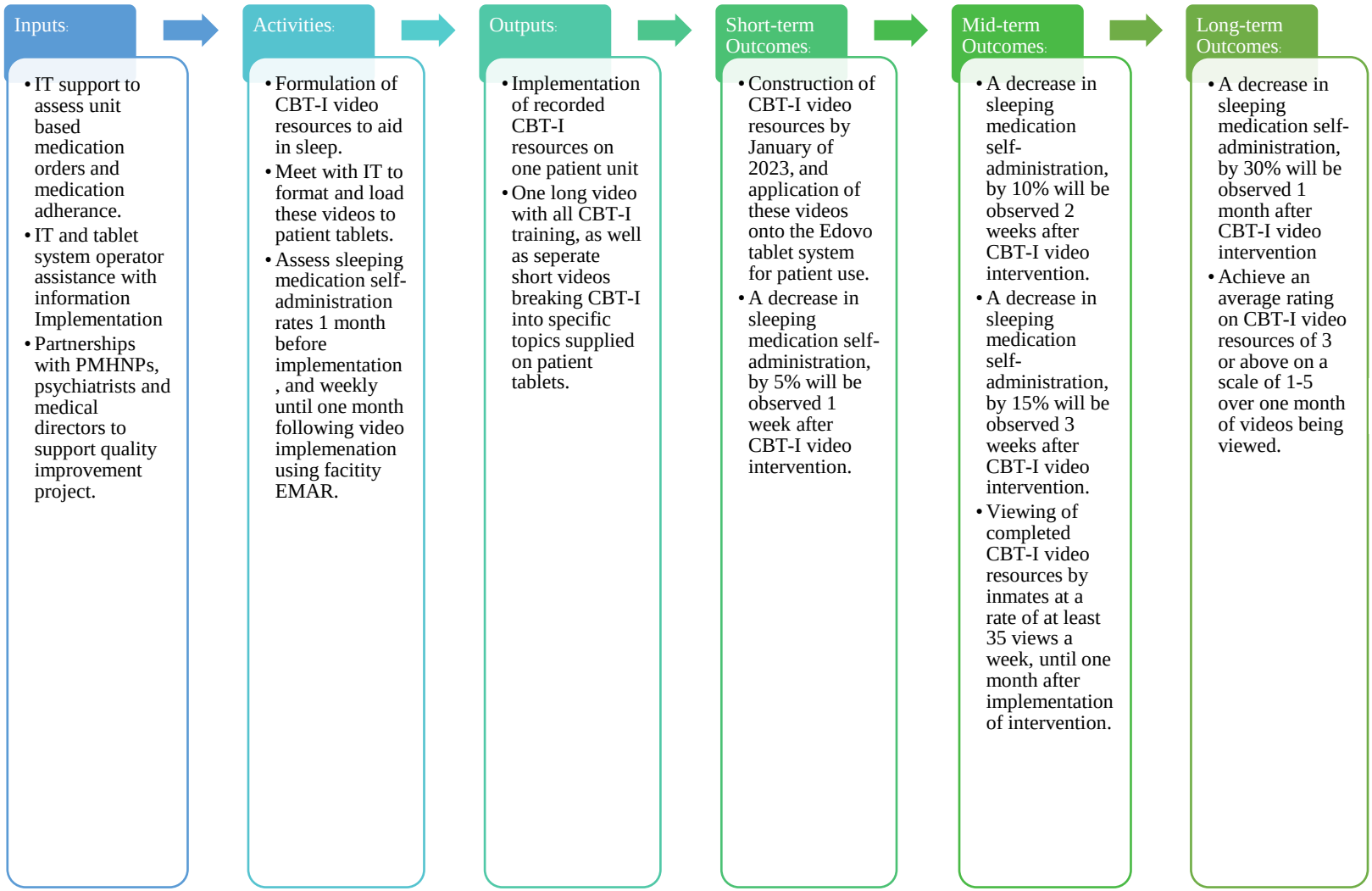
To assess the outcome of this intervention, the amount of sleeping medications self-administered from patient boxes will be assessed one month before videos are available and then weekly for one month after CBT-I videos are implemented. This data will be obtained using the facilities electronic health record to assess self-administration rates one month before implementation and weekly until one month after implementation. Data will be collected on one unit within the facility and on the same day each week. There is evidence that shows the implementation of cognitive behavioral therapy for insomnia can improve sleep quality and lead to remission rates as high as 73% for those with insomnia one month after intervention (Randall

et al., 2019). This is considered the first line treatment for insomnia, and is shown to be effective in face-to-face, digitally, in group settings, or individually. CBT-I is effective as a “one shot” intervention, but these video resources will allow the patients to review and practice techniques and skills as many times as they wish. Another indicator that can be used to evaluate the outcome of this intervention is the number of times the CBT-I videos are viewed. Data will be collected, and aggregate numbers will be provided to the project leader weekly. Satisfaction scoring at the end of CBT-I videos will also be provided as aggregate data to the program lead to evaluate outcomes and patient satisfaction.

Specific Aims

The Donabedian quality improvement framework is known for its focus on very patient centered interventions. Using this model, this project aims to achieve a change in health behavior by using a non-pharmacologic treatment option rather than a pharmacologic treatment option for insomnia. The overarching goal of this intervention is a decrease in sleeping medication self-administration, by 30% observed 1 month after CBT-I video intervention. Included below is my logic model which displays inputs, activities, outputs, and goals of this intervention.

Figure 1. Logic Model.



Context

This intervention will be implemented at an all-male prison in the Northwest United States. The total population of those who reside in this facility are around 1,600. The intervention will be evaluated using data from one unit within this facility, this unit houses about 200 to 250 residents. The demographics of this facility reflect that of the region in which the prison is located. The majority of this population is white, with some individuals who are Native American, Hispanic, and African American. In conversations with the four mental health providers at this facility, they report that multiple inmates complain of insomnia. The medications they prescribe for sleep are placed in weekly medication boxes by nursing staff, as these medications are considered to have high abuse potential. The prescription of "Z-drugs" and anxiolytics for sleep are not utilized in this setting. There is a strong desire for more treatment methods to increase sleep quality without the use of medications. Sleeping medications are not considered very effective because they are administered at either 4pm or 7pm, and adherence to these prescriptions is often low. The decrease in prescribing of sleeping medications would decrease the cost the facility pays to the pharmaceutical company supplying their medications. This will also decrease the amount of weekly medication boxes that nursing staff build and fill each week.

Intervention and Implementation

The proposed intervention is the addition of CBT-I video resources onto the Edovo tablet system within a male prison setting. These videos will be recorded by the student and cover the CBT-I components of psychoeducation, sleep restriction, stimulus control, cognition, and

relaxation training. These resources will be recorded and available for viewing on the patient tablets in January of 2023. An electronic announcement will be made through the tablet system to the inmates within the facility, making them aware of this new sleep resource as well as educating them on how to utilize this resource. Providers will receive email announcements educating them on the components and effectiveness of CBT-I as well as education on how these resources can be accessed and used by patients. Providers will be encouraged to refer their patients to this resource as an alternative to medication treatment for sleep. Inmates can check out tablets and use them throughout the day. They will be able to access these resources at their leisure. The number of times these CBT-I videos are viewed will be provided as a weekly report to the project leader. No inmate identification will be provided. The amount of sleeping medications that are self-administered will be assessed one month before implementation, and weekly until one month after implementation in one unit of the prison. There will be no patent identifiers associated with data collected, this data will allow the project leader to see increases or decreases in sleeping medication self-administration rates. This intervention will not cost anything to the organization.

There are some anticipated challenges and barriers to implementation of this intervention. There is the risk that the implementation of this intervention may be delayed due to response time for IRB approval. One challenge will be to implement these video resources in a way that is easy to find, access, and navigate on the tablet system. The tablet content designer will be assisting in this process and hopefully help navigate challenges and barriers in this area. The largest barrier anticipated will be patient preference for medications over therapy-based treatment options. Some providers may feel pressured to prescribe a sleeping aid medication due

to patient request even though CBT-I is considered first line treatment. There is also the risk that patients will be referred to CBT-I resources but not follow through in watching videos and learning the content. Some may watch some of the videos and not complete the series on all CBT-I components. To address this possible barrier, patients and providers will be electronically educated on the impacts and effectiveness of CBT-I as an intervention, and providers will be encouraged to refer patients to these videos. Overall, the effectiveness of this intervention lies in the hands of the participants willingness to engage and practice CBT-I strategies and techniques.

Evaluation

The overall goal of this intervention is to create a psychological treatment for sleep to improve insomnia and decrease the need for sleeping aid medications in this setting. It is expected that medication adherence may decrease if this intervention is effective, due to decreases in symptoms, and fewer need for these aids. Effective CBT-I eliminates the need for new prescriptions of sleeping medications and further decreases the need to administer the ones prescribed. Data on medication adherence will be collected from the EHR with the help of the facilities' ADON. This information will be collected one month before project implementation and weekly until one month after implementation. The data collected will be compiled into a bar chart for visual representation. Data will be collected in the same way, at the same time of the week, and on the same unit to ensure completeness and accuracy of the data. No individual demographics or patient specific data will be collected, information gathered will be collected as a conglomerate number for the unit.

Table 1. SMART Goals.

SMART Goal #1 Short-Term Outcome: A decrease in sleeping medication self-administration, by 5% will be observed 1 week after CBT-I video intervention.

As the CBT-I video intervention becomes effective sleeping medication self-administration should begin to decrease.

Description of strategies to be utilized to accomplish goal including any needed resources:

- All mental health providers will receive email information on the evidence behind CBT-I and the effectiveness of using this as a first line treatment for sleeping difficulties and insomnia.
- A resource sheet constructed by the project lead with information on how CBT-I is conducted and the evidence behind it will be provided to these individuals.
- Project lead will work with the Edovo tablet system content designer to formulate and implement CBT-I video resources on the tablet system.
- Providers will be made aware of the release of these CBT-I recourses and be encouraged to refer patients to videos before implementing pharmacologic treatment measures.

Data to be Collected:	Method of Collecting and Who is Responsible:	Planned Data Analysis:
Self-Administration of sleeping medications prescribed 1 week after implementation of intervention	ADON of site will run EHR reports of sleeping medication adherence in one unit of the facility. This data will be collected at 1 week after implementation of CBT-I video resources.	Medication adherence information will be collected as numerical values. Averages and standard deviations will be calculated. Comparisons will be made between sleeping medication self- administration rates with data from before CBT-I implementation.

Table 1. SMART Goals continued.

SMART Goal #2 Intermediate Outcome: Viewing of completed CBT-I video resources by inmates at a rate of at least 35 views a week, until one month after implementation of intervention.

The collection of this data will help the project leader determine if adequate viewing of video resources is taking place and if viewing of CBT-I videos connects with decreases in medication prescription and medication adherence.

Description of strategies to be utilized to accomplish goal including any needed resources:

- Providers will be made aware of the release of these CBT-I recourses and be encouraged to refer patients to videos before implementing pharmacologic treatment measures.
- An electronic announcement will be made to inmates using the tablet system, informing them of this new video resource and how to utilize and access it. This announcement will take place the day before CBT-I videos are available and the day they are available for viewing.

Data to be Collected:	Method of Collecting and Who is Responsible:	Planned Data Analysis:
Number of weekly views of CBT-I video resources.	Project leader with the help of the Edovo tablet system content creator and IT staff.	This data will be analyzed using an excel scatterplot to show the number of weekly video views.

SMART Goal #3 Intermediate Outcome: A decrease in sleeping medication self-administration, by 10% will be observed 2 weeks after CBT-I video intervention.

As the CBT-I video intervention becomes effective sleeping medication self-administration should begin to decrease.

Table 1. SMART Goals continued.

Description of strategies to be utilized to accomplish goal including any needed resources:		
• All mental health providers will receive email information on the evidence behind CBT-I and the effectiveness of using this as a first line treatment for sleeping difficulties and insomnia. • A resource sheet constructed by the project lead with information on how CBT-I is conducted and the evidence behind it will be provided to these individuals. • Project lead will work with the Edovo tablet system content designer to formulate and implement CBT-I video resources on the tablet system. • Providers will be made aware of the release of these CBT-I recourses and be encouraged to refer patients to videos before implementing pharmacologic treatment measures.		
Data to be Collected:	Method of Collecting and Who is Responsible:	Planned Data Analysis:
Self-Administration of sleeping medications prescribed 2 weeks after implementation of intervention	ADON of site will run EHR reports of sleeping medication adherence in one unit of the facility. This data will be collected at 2 weeks after implementation of CBT-I video resources.	Medication adherence information will be collected as numerical values. Averages and standard deviations will be calculated. Comparisons will be made between sleeping medication self-administration rates with data from before CBT-I implementation and weeks 1 and 2.

Table 1. SMART Goals continued.

SMART Goal #4 Long-Term Outcome: A decrease in sleeping medication self-administration, by 30% will be observed 1 month after CBT-I video intervention. This goal is set at 30% as previous implementations of "one shot" CBT-I in this population lead to insomnia remission rates of up to 73% in one month. As the CBT-I video intervention becomes effective sleeping medication self-administration should begin to decrease.
Description of strategies to be utilized to accomplish goal including any needed resources: • All mental health providers will receive email information on the evidence behind CBT-I and the effectiveness of using this as a first line treatment for sleeping difficulties and insomnia. • A resource sheet constructed by the project lead with information on how CBT-I is conducted and the evidence behind it will be provided to these individuals. • Project lead will work with the Edovo tablet system content designer to formulate and implement CBT-I video resources on the tablet system. • Providers will be made aware of the release of these CBT-I recourses and be encouraged to refer patients to videos before implementing pharmacologic treatment measures.

Table 1. SMART Goals continued.

Data to be Collected:	Method of Collecting and Who is Responsible:	Planned Data Analysis:
Self-Administration of sleeping medications prescribed 4 weeks after implementation of intervention	ADON of site will run EHR reports of sleeping medication adherence in one unit of the facility. This data will be collected at 4 weeks after implementation of CBT-I video resources.	Medication adherence information will be collected as numerical values. Averages and standard deviations will be calculated. Comparisons will be made between sleeping medication self- administration rates with data from before CBT-I implementation and each following week until the one-month point.
SMART Goal #5 Long-Term Outcome: Achieve an average rating on CBT-I video resources of 3 or above on a scale of 1-5 over one month of videos being viewed. By achieving this goal patient satisfaction of CBT-I video resources will be able to be examined.		
Description of strategies to be utilized to accomplish goal including any needed resources: • Implementation of 1–5-star rating scale following CBT-I video resources by the Edovo content creator for the tablet system.		

Table 1. SMART Goals continued.

Data to be Collected:	Method of Collecting and Who is Responsible:	Planned Data Analysis:
Numerical data on CBT-I video ratings after viewing during the 4-week period of implementation. Satisfaction of the viewer will be scored with a rating from 1-5 each time a video is viewed.	Edovo tablet content creator and IT staff will gather data on satisfaction scores and refer this information to the project lead.	Patient rating of CBT-I video resources will be collected weekly as numerical values. Averages will be calculated to depict overall patient satisfaction with this resource. Comparisons will be made between times the videos were viewed and overall patient satisfaction with the videos.

Alternative SMART Goal #5 Long-Term Outcome: Qualitative feedback obtained from mental health providers and therapists supporting claims that CBT-I video interventions lead to improved sleep quality and a decrease in insomnia symptoms over the 4-week implementation period.

If unable to rate patient satisfaction following viewing of CBT-I video resources feedback will be obtained from mental health providers and therapists on the impacts of CBT-I videos.

Description of strategies to be utilized to accomplish goal including any needed resources:

- As survey questionnaire without patient identifiers will be provided to mental health providers and therapists to assess overall symptom improvement in patients with insomnia and patient reported sleep quality after watching CBT-I video resources.

Table 1. SMART Goals continued.

Data to be Collected:	Method of Collecting and Who is Responsible:	Planned Data Analysis:
Qualitative data on perceived improvement, unchanged, or worsening of insomnia symptoms and sleep quality after watching CBT-I videos during the 4-week period of implementation. Data also collected on perceived satisfaction with CBT-I video resources.	Survey questionnaires will be provided to and completed by mental health providers and therapy staff. These survey questionnaires will be then turned into the project lead one month after implementation of CBT-I video resources.	Identification of reoccurring themes, language, opinions, and beliefs from data collected. Presentation of this information in a cohesive manner.

CHAPTER THREE

QUALITY IMPROVEMENT MANUSCRIPT

Abstract

Problem Statement: While sleeping issues are widely present within the general population, insomnia rates can be as high as 61% within prison settings. The consequences of untreated insomnia in these settings can attribute to increases in irritability, impulsiveness, anger, aggression, and overutilization of the prison health care system. Insomnia is known to increase the prevalence and severity of anxiety and depression, but it can also increase suicidality, suicide attempts, and suicide completions. The first line treatment method for insomnia is Cognitive Behavioral Therapy for Insomnia (CBT-I). Implementation of Cognitive Behavioral Therapy for Insomnia has the potential to decrease the prescription of sleeping medications in this setting as patients experience symptom reduction and remission from insomnia and no longer need medication treatment. **Methods:** A clinical practice guideline suggesting the addition of Cognitive Behavioral Therapy for Insomnia video resources to the inmate electronic tablet system was presented to multiple stakeholders within the organization. Qualitative feedback was gathered and analyzed following this presentation. **Results:** Feedback was organized into 8 themes; limited barriers to implementation, validation of issues with the current process, language changes to be made, initiating implementation at the facility's intake unit, the potential increase in patient trust and autonomy, the referral process and accessibility, feedback reports, and future directions. **Conclusions:** This guideline would be edited to include feedback provided by stakeholders, then evaluated again using the AGREE-II tool before it would be implemented.

Introduction

Insomnia is a very common condition that greatly impacts an individual's sleep and mental health. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), insomnia is a condition where an individual struggles to fall asleep, stay asleep, or fall back to sleep after an early awakening (American Psychiatric Association, 2013). This sleep difficulty is present for at least 3 months and causes significant distress or impairment to the patient (APA, 2013). It is not attributed to another sleep wake disorder, medical condition, or drug use (APA, 2013). Insomnia can be caused by a multitude of predisposing and precipitating factors including chronic co-morbid health conditions, traumatic life events, shift work, drug use, illness, and stress (Canas-Simião & Kisand, 2020; Martin et al., 2022). Insomnia can be sustained if individuals have poor sleep hygiene, associate the bedroom with non-sleep activities, and psychologically condition themselves to have negative thoughts about sleep (Canas-Simião & Kisand, 2020; Martin et al., 2022). It may take certain thoughts and behaviors to be unlearned and adjusted to improve sleep.

Insomnia within a prison setting is even more prominent. Up to 61% of inmates in these settings experience symptoms of insomnia and have been diagnosed with this condition (Randall et al., 2019). In these populations the use of anxiolytic and hypnotic medications to address sleep concerns is ten times higher than the general population (Randall et al., 2019). These types of medications are reserved for short term use and can be damaging to sleep processes and cycles within the brain if used long-term (Dewa, 2017). Antidepressant and antipsychotic medications with sedating side effects are also often used to induce sleep in this patient population (Dewa, 2017). Over time this prescribing practice can be damaging to the physical and mental health of

these individuals (Dewa, 2017). Untreated insomnia in the prison setting can attribute to increases in anger, aggression, impulsivity, and overutilization of healthcare systems (Randall, Nowakowski, & Ellis, 2019). Insomnia can also increase the prevelence and severity of anxiety and depression as well as increase the risk of suicidal thinking, suicide attempts, and suicide completions (Randall et al., 2019). While often not as widely used as a first line treatment method, there are non-pharmacological treatment options to address insomnia.

Cognitive Behavioral Therapy for Insomnia (CBT-I) is currently the recommended first line treatment for insomnia (Canas-Simião & Kisand, 2020; Ellis et al., 2015; McCrae et al., 2018). This form of therapy can be offered individually, in a group setting, face-to-face, or digitally with equal effect (Boullin et al., 2016). CBT-I is composed of four components; sleep education, sleep restriction therapy, thought processes around sleep, and relaxation training. The use of CBT-I in a prison setting has been shown to improve symptoms of anxiety, depression, as well as a contribute to a remission rate of 73% from insomnia symptoms just one month after treatment initiation (Randall et al., 2019). This intervention poses very low risk, is effective, and is cost efficient.

The practice setting of implementation for this project is attempting to manage insomnia with only prescription medications and limited alternative treatment options. Patients do not take the sleeping medications they are prescribed due to odd administration times, yet still complain of insomnia symptoms. These medications are not allowed to be kept with the inmates in their housing location due to problems of misuse. They are administered to the inmates by staff at 4pm in the more restricted units and at around 7pm in all the other units. Medication compliance shows that very few daily doses of these medications are self-administered on a weekly basis, yet

insomnia is still a prevalent issue. In this population psychological treatments for sleep, such as CBT-I are needed. A clinical practice guideline outlining the possible implementation process of CBT-I treatment will be presented to the facility.

Methods

Context

There are systematic issues that need to be acknowledged before implementing a quality improvement project within this setting. There is limited use of non-pharmacologic treatment methods that are considered first line and most effective in the treatment of insomnia, such as CBT-I. This is likely due to the limited availability of therapists to conduct psychological interventions and the frequency of prescribing medications as a solution to the medical and mental health needs of patients. Medications to aid in sleep may be effective within this setting but would likely work more efficiently if administered closer to a normal bedtime. The scheduling of evening medication administration is something that is unlikely to be adjusted. Data on outcomes regarding patient sleep are not routinely collected for this population. Costs of prescribing medications that patients do not adhere to is likely making an impact in the financial sector of this microsystem as these medications cannot be returned to the pharmacy and are often wasted and discarded. The performance of current treatments used for insomnia in this setting are inadequate and not adequately effective.

Stakeholders in this organization see the need for quality improvement at the systems level. It is understood that changing the medication administration schedule is a solution that would take a lot of time to implement and would likely increase the use of pharmacological measures to treat insomnia. The availability of more non-medication treatment options is desired

by mental health providers and medical administration. It was concluded that the creation of a clinical practice guideline outlining the implementation of CBT-I video resources that could be added to patient tablets would be an impactful intervention. This clinical practice guideline is included for your review in the appendices. This guideline will be presented to stakeholders of this organization with the goal of gathering feedback and improvement suggestions. Below is the presented implementation process this clinical practice guideline suggests.

Proposed Implementation of CBT-I onto Inmate Tablet System

It has been verified that video recourses can be implemented in a course like format on the current Department of Corrections tablet system. The tablet content coordinator will be involved in the design stages of these videos. These CBT-I video resources will be developed using already formulated resources including the McQuaid, Sze, and Otilingam (2021) Cognitive Behavioral Therapy for the Treatment of Insomnia (CBTi) Treatment Manual and Jacobs (2022) Clinical Training Manual for CBT-I. These videos will be created in collaboration with clinical therapists, mental health providers, the mental health nursing staff, and the mental health department supervisor using already created guides and resources.

Four videos will be created, one on each component of CBT-I, each lasting about 15 minutes. The first video will cover Sleep Education and explain how insomnia develops. Topics such as the predisposing, precipitating, and perpetuating factors in insomnia as well as sleep hygiene and the sleeping signals and cycles of the brain. Following this is the discussion of Sleep Restriction Therapy and Stimulus Control. This instructs patients to only go to bed when tired, using the bed primarily for sleep, limiting time spent in bed if not able to sleep, waking up at a regular time regardless of sleep obtained that night, and avoiding naps during the day. The

Cognitive Components of Sleep teach the adjustment of negative thoughts and beliefs about sleep and replacing them with alternative positive thoughts, as well as engaging in practices like scheduling a daily "worry time" at least 3 hours before bed. Measures to Counter Arousal include the teaching of relaxation techniques such as diaphragmatic breathing, 4-7-8 breathing, and progressive muscle relaxation. Video content will be adjusted for the use in a prison setting as it is recognized that the bed is used for more than just sleep in this setting. Inmates will be encouraged to designate a "non-sleep" space in their cell if possible. Anonymous satisfaction screening questions will be added at the end of each instructional video allowing for inmate input and guidance for future updating of these resources.

Providers, therapists, and mental health nursing staff will be encouraged to refer their patients to this resource as an alternative to medication treatment for sleep. These four CBT-I instructional videos will be added to the inmate tablet system for inmates to access. An electronic announcement will be broadcasted through the tablet system making inmates aware of this new sleep resource and educating them on how to utilize this resource. These videos will be available in the resource and learning section of the inmate tablet system. The techniques taught in these videos can be integrated into daily activities and even practiced while watching the video. Inmates can view these video resources at their leisure, as many times as they wish.

Use of this video resource can be evaluated in reviewing satisfaction responses as well as the amount these videos were watched. Videos will be updated periodically as new evidence-based research becomes available. Updated videos of new relaxation techniques, breathing instruction, and mindfulness practices can also be uploaded at this time. If resources are available there is the future possibility to conduct face-to-face group sessions teaching CBT-I content.

Data Analysis

The clinical practice guideline was presented, discussed, and analyzed by the presenter and the facility stakeholders. It was evaluated on its perception of usefulness, the proposed implementation plan, and any challenges or barriers that are expected to arise. This data was collected in the form of qualitative verbal feedback and recorded by the presenter to be further analyzed. Major themes were identified from the qualitative data collected. These themes were organized and categorized. This data will bring to light any changes and edits that need to be made to the clinical practice guideline before its further evaluation and eventual implementation.

Results

Outcomes

The proposed clinical guideline suggesting the implementation of cognitive behavioral therapy for insomnia within a prison setting was well received. Eleven stakeholders were present at this presentation and discussion: three mental health providers (1 psychiatrist and 2 PMHNPS), one medical provider, the infection control supervisor, the chronic care and special needs supervisor, the assistant director of nursing, the facility's director of nursing, the managed care nurse, the tablet content coordinator, and the bureau chief of medical services. Eight categories of feedback emerged from stakeholders following this presentation. The categories were as follows; limited barriers to implementation, validation of issues with the current process, language changes to be made, initiating implementation at the facility's intake unit, the potential increase in patient trust and autonomy, the referral process and accessibility, feedback reports, and future directions. These themes that emerged both validate the suggested clinical practice

guideline as well as proposed changes and additions. The table below shows how these themes were developed from direct quotes provided by stakeholders.

Table 2. Theme Development.

Stakeholder Quote:	**Corresponding Theme:**
• "If it is evidence-based and shown to be effective, it will be easy to put on the tablets."	Limited Barriers to Implementation
• "Giving these medications too early can be detrimental."	Validation of Issues with the Current Process
• "This treatment could decrease medication costs and the amount of waste we create."	
• "The word arousal may lead inmates to not take these videos as seriously."	Language Changes to be Made
• "This would be very helpful to start when inmates first arrive and are struggling to adjust."	Suggested Implementation at the Intake Unit
• "Compliance decreases as they [inmates] progress through their time, implementing this early on might be more effective."	
• "Patients that really want the help would use the resource."	Potential Increase in Patient Trust and
• "Patients might be more trusting of our treatments if we had more than one options to offer them."	Autonomy
• "Providers could be encouraged to refer patients to CBT-I videos before prescribing medication."	The Referral Process and Accessibility
• "Individual invites could be sent out explaining the new resource and include a link directly to the videos."	
• "We would be able to see what videos were watched and if they were completed, then send this information to therapists and providers."	Feedback Reports
• "More digital methods of therapy would be helpful until more therapists are hired."	Future Directions
• "The idea of having an onsite Cognitive Behavioral Therapy provider would be so helpful for the inmates."	

It was concluded that there are very few barriers in the implementation of CBT-I video resources on the tablet system. If these resources are evidence-based and found to be effective in previous research, they will easily be allowed onto the inmate tablet resource system. Stakeholders validated the assessed issues seen within the current sleep treatment practices of the prison system. It was discussed that current practices were ineffective and could lead to more detrimental outcomes impacting an individual's sleep and mental health. One staff member present stated, "giving these medications too early can be detrimental", referring to sleeping medications interfering with the release of sleep chemicals and hormones in the brain and the brain's natural circadian rhythm. It was also concluded that the use of CBT-I could decrease medication prescribing costs and medication waste.

There was one suggestion in relation to changing the language used when implementing these video resources. The word "arousal" was determined to be distracting when used within this population. It is thought that inmates would not take the video instruction seriously if this word was used. It was also suggested by stakeholders that these resources first be implemented within the facility's intake unit when the inmate first arrives. This period of stress and adjustment is where poor sleep habits and insomnia are likely to develop. It was also said that "compliance decreases as they [inmates] progress through their time". It may be the most helpful to implement this treatment method early, prior to the formation of perpetuating factors that contribute to the continuation of insomnia.

Having more than one treatment option to address insomnia was thought to potentially increase patient trust and autonomy. This new resource teaches patients about the factors and risks leading up to insomnia and it aims to treat these root causes rather than the secondary

symptoms. Educating patients about this resource and describing its effectiveness is thought to improve trust between provider and patient. The addition of CBT-I as a resource is also thought to increase patient autonomy by "encouraging the patient to help themselves". While the underutilization of this resource is a potential barrier it is thought by stakeholders that, "patients who really want help would use this resource".

The referral process and the accessibility of this resource was found to be more easily managed than initially expected. It was agreed that providers would be encouraged to refer patients to the CBT-I instructional videos on the inmate tablet system before prescribing medication treatment for sleep. The tablet system can send individual invites to inmates, explaining what CBT-I is and how it works as well as linking them directly to the video resources. More in-depth feedback reports are also available beyond just viewing satisfaction screening scores and number of video views. Reports may also be available to providers to review which videos their patient's watched and if they completed the whole course of CBT-I videos. This would help providers see if an adequate trial of nonpharmacological treatment methods for insomnia were completed and would help them determine if medication treatment is the next step.

There was even some discussion about the future directions of cognitive behavioral therapy in the prison setting. There is currently a very limited number of therapists for this setting, and they are under a lot of pressure to see an overwhelming number of individuals. It was decided that these types of nonpharmacological resources added to the inmate tablet system could be helpful for inmates willing to engage in digital cognitive behavioral therapy resources. These resources could provide instruction and take some pressure off the therapy providers. It

was also discussed that in the future it would be very beneficial to have an onsite cognitive behavioral therapy provider that could provide group and individual sessions to inmates. As well as teach cognitive behavioral therapy for insomnia in a face-to-face format.

Discussion

Summary

For many stakeholders this was their first time learning about cognitive behavioral therapy for insomnia and learning about its use and effectiveness. CBT-I has been used in many community settings as well as within the department of corrections. CBT-I has shown to be effective face-to-face and digitally, in group sessions, individual sessions, in a span of multiple sessions or in just one session. This nonpharmacological treatment method has shown to be effective in the remission of insomnia by 73% after being conducted face-to-face in one session within the prison setting (Randall et al., 2019). While CBT-I has never been implemented as instructional videos on an inmate tablet system, it is still expected to be effective at treating the root cause of insomnia for these individuals, decreasing their symptoms, and improving safety within the facility. The implementation of CBT-I in this facility also has the potential to decrease prescription costs of sleeping medications as well as decrease medication waste.

After being presented with this clinical practice guideline on the implementation of CBT-I on the inmate tablet system, stakeholders validated expressed concerns about the current processes in place to address sleep concerns, as well as offered feedback on what could be changed or added to the implementation section of the presented guideline.

Limitations

There are some anticipated challenges and limits to the generalizability of the work described. The types of sleeping medications and sleeping aids used as well as the availability of therapy resources in other correctional facilities is unknown. Mental health providers elsewhere may have the ability to provide CBT-I instruction face-to-face with patients and may regularly use this as a nonpharmacologic treatment for insomnia. Some facilities may have medication administration schedules that allow inmates to take prescribed sleeping medications at a more appropriate time. Tablet systems in other facilities may not be able to incorporate such resources. Although this clinical practice guideline could be very useful in organizations with limited non-medication treatment methods, limited therapy resources, inappropriate medication administration schedules, and prevalent rates of insomnia. The availability to implement video resources on a tablet system is one of the few requirements to making this treatment a reality.

Conclusions

The concept of implementing cognitive behavioral therapy for insomnia onto the patient tablet system within a prison setting has not previously been done or discussed in my review of the literature. The use of CBT-I in the prison setting has been shown to be effective at not only reducing insomnia symptoms and leading to remission of the condition, but also decreasing symptoms of depression and anxiety and increasing safety of patients and staff (Randall et al., 2019). Untreated insomnia can lead to increases in anger, aggression, impulsivity, and suicidal thoughts and attempts (Randall et al., 2019). Implementing CBT-I in video format is a sustainable way to introduce the components and practice of this type of therapy. These videos can easily be updated and adjusted as new evidence-based knowledge arises. The next step is to incorporate the feedback provided by stakeholders and update the proposed clinical practice

guideline. This guideline would then be evaluated again using the AGREE-II tool to assess its methodologic quality before implementation. If successful, this new methodology for using CBT-I could be implemented in many correctional facilities and widely utilized. Valuable data could be gathered from the implementation of this clinical practice guideline that suggests the addition of cognitive behavioral therapy for insomnia videos on the inmate tablet system.

CHAPTER FOUR

REFLECTION OF DNP ESSENTIALS AND EDUCATIONAL JOURNEY

Introduction

These past four years in the Montana State University Doctor of Nursing Practice (DNP) Program have prepared me well for future practice. The essentials of doctoral education for advanced practice provided a guideline for my learning to follow. I have been prepared for complex practice and leadership roles. I have gained immense knowledge to apply in improving nursing practice and patient outcomes. I have developed leadership and communication skills that allow me to collaborate in a team and in an interprofessional capacity.

Essential I: Scientific Underpinnings for Practice

All the courses I have completed throughout my graduate program have led to the achievement of this DNP essential. I learned a transdisciplinary model in my first clinical preparation course that taught me to recognize the biological, psychological, and social factors that impact a patient's health, contribute to illness, and determine necessary treatment delivery. This biopsychosocial model helps me incorporate multiple types of sciences into my assessment of the patient and gather an understanding of the contributing factors leading to their presenting concerns. This same type of assessment is outlined in my proposed quality improvement project. There are predisposing factors and precipitating factors that lead to the diagnosis of insomnia. My proposed intervention to treat this condition is the use of Cognitive Behavioral Therapy for Insomnia (CBT-I) as instructive video resources. This nonpharmacological treatment modality is

evidence-based and incorporates the science of human biology and psychosocial sciences, the categories of natural and social sciences.

My course work and clinical practice these past four years has provided a base of scientific knowledge that I will apply to my career as a Psychiatric Mental Health Nurse Practitioner (PMHNP). I have been able to assess and treat patients across the lifespan as well as recognize common manifestations of psychiatric diagnoses. I will continue evaluating evidence-based research and practice approaches and incorporate this knowledge into the way I assess, diagnose, and treat my patients. I will use clinical practice guidelines as well as validated and trustworthy resources such as the Neuroscience Education Institute, the Carlat Reports, and Simple and Practical Mental Health.

Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking

One assignment that I found helpful in meeting this DNP essential was performing community research, a community assessment, and a windshield survey in my vulnerability in healthcare and diverse community's course. This assignment allowed me to gather data on the community and populations I serve as a nurse and soon to be nurse practitioner. I was able to recognize improvement areas in my community and aim to improve them through evaluating current care delivery processes. Throughout my program I have been growing as a leader in organizational change by reviewing the needs of my patients and patient populations as well as suggesting ideas on how to improve or develop new care processes for these individuals as a form of advocacy. I used this same organizational systems assessment process to evaluate the care delivery processes for sleep concerns at the clinical setting where I implemented my project.

I realized that there was a more effective way to address the sleep concerns of patients that was overall more cost effective and posed lower risk to patients than sleeping medications.

Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice

I have spent much time reviewing scholarly articles, randomized control trials, systematic reviews, meta-analyses, experimental studies, qualitative research studies, literature reviews, quality improvement studies, and numerous textbook materials. I have translated this knowledge from my didactic course work and my clinical practice. One example that demonstrates my achievement of this DNP essential is the cumulation of research and the analysis of this research that was conducted to create my DNP scholarly project. I reviewed the literature on cognitive behavioral therapy for insomnia (CBT-I), formulated an assessment of the clinical site chosen, and created a quality improvement project aimed at improving patient care and promoting evidence-based treatment options.

My scholarly project embodies this DNP essential. I used analytical methods to critically appraise the literature on the topic. I designed a process to implement a practice change. I evaluated staff feedback and buy-in after presenting my idea to them. I also predicted expected outcomes if implementation took place. My educational journey has helped me recognize practice problems within my work and clinical settings and encouraged me to translate my research and knowledge into action.

Essential IV: Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care

My health care design course helped me achieve this DNP essential by allowing me to evaluate the care and information systems within the facility in which I worked. I thoroughly evaluated the accuracy and efficiency of admission processes, discharge processes, and medication administration processes. This allowed me to see specific problem areas within these everyday processes and attempt to improve and transform them. I have navigated many technology systems during my time as a student, completing both course work and clinical work. I have used multiple electronic health records, electronic communication methods, documentation templates, telehealth platforms, and even phone applications. I have learned to adapt to a technologically advancing age and educate my patients on how to do so as well.

My DNP scholarly project focuses on the use of a technology system to implement a practice change. Within the chosen practice setting, there is a tablet system that provides computer-based learning. I am proposing that the nonpharmacologic treatment, CBT-I be implemented on this technology information system for patient use and benefit.

Essential V: Health Care Policy for Advocacy in Health Care

My vulnerable populations course helped me to meet this DNP essential. I have a deeper understanding of how health care policy can impact health care delivery, disparities in health care, access to care, cost of care, quality of care, and the social justice issues related to the delivery of this care. Due to my time in this program, I have become more aware of the

importance of population health issues and how they can be influenced by health care policy. I have gained a deeper understanding of the regulatory process of health care practice as well as the appropriation of funds to improve resources and access to care. Patients in my clinical setting regularly bring up the Disability Rights Montana settlement agreement, regarding them feeling that their mental health needs are not being met. My clinical practice setting currently is deprived of therapy resources and aid. The aim of my DNP scholarly project is to propose an idea that could potentially alleviate the pressure experienced by the facilities therapists as well as provide symptom relief from insomnia. This is a very large issue related to the allocation of mental health resources and access to services at the organizational level.

Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes

Collaboration and group work played a notable part in my DNP education. Throughout my courses I learned to work with many different students that had different learning styles, leadership qualities, levels of investment in projects, and differing ideas. I learned to employ effective communication skills and step into leadership positions to complete quality work with the help of a team. In my clinical setting I have had the opportunity to meet many staff members from multiple disciplines. I have sat in on team meetings and presented my patient cases as well as offered my input when other team members ask for clinical consultation. For my scholarly project I have collaborated and communicated with facility stakeholders from may interprofessional areas. They have helped me to brainstorm quality improvement ideas and gave me feedback on the completion and presentation of my clinical practice guideline.

Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health

The program planning and evaluation course I completed supports my achievement of this DNP essential. In this course we conducted many community assessments. We looked at microsystem, mesosystem, and macrosystem models to help diagnose and treat systematic issues within the community. This allowed for the planning of health care delivery programs that aimed to address population health needs. My quality improvement project aims to treat the root causes of insomnia that predispose, precipitate, and perpetuate symptoms. There are risk factors that can generate a diagnosis of insomnia. The teaching of cognitive behavioral therapy for insomnia helps providers educate patients on proper sleep education and healthy sleep habits to prevent this diagnosis.

Through my research and clinical observation, trauma is a large risk factor in the evolution of mental health disorders. Throughout my time as a student, I have recognized the impact of untreated mental illness on the health of an individual. When trauma is appropriately processed it can prevent the development of mental illness or mitigate the severity of these disorders. I have come to realize the importance of lifestyle modification, coping mechanisms, and psychotherapy. Having a deeper understanding of the struggles my patients face has encouraged me to advocate for accessible, low cost, and quality care to meet their needs.

Essential VIII: Advanced Nursing Practice

I have met this DNP essential in my advanced health and physical assessment course. In this course we completed many online assessment modules and interviews with virtual patients. We also conducted a head-to-toe exam on a live person, asking the participant pertinent

questions and assessing for physical and psychological abnormalities. I performed similar virtual assessments in my diagnostic reasoning course. These courses helped me to gain confidence in my interviewing skills and my ability to perform accurate physical assessments. My clinical assessments at the site of my scholarly project led me to my quality improvement idea. Patients in this setting lack education on sleep processes and sleep hygiene. Their only form of treatment for sleep issues is medication, that is administered too early in the evening to be effective. From this assessment I formulated a therapeutic intervention and suggested the process of its implementation to facility stakeholders.

Throughout these past four years I have gained knowledge, confidence, and competence in my area of specialization. I have progressed in my assessment skills, my diagnostic skills, and my critical thinking to formulate a treatment plan that is individualized to the patient. I feel confident in conducting initial and follow-up interviews, gathering additional information from associated providers, formulating diagnoses, prescribing, and adjusting medications, and developing comprehensive treatment plans.

Conclusion

Throughout my time in this program, I have met the foundational competencies that are core to my advanced nursing practice role. I have achieved the required Doctor of Nursing practice essentials of scientific underpinnings for practice, clinical scholarship and evidence-base practice, information and technology systems, health care policy, interprofessional collaboration, population health, clinical prevention, and advanced nursing practice. I have put my knowledge into action by assessing, diagnosing, and treating patients as well as advocating for process change and health policy change. I have grown to become a competent nurse leader in the

specialty area of psychiatry. I feel confident and excited to graduate and put my knowledge and practice to work as an independent practitioner.

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APPENDICES

APPENDIX A

LITERATURE REVIEW MATRIX

Table 3. Literature Review Matrix

Citation	**Conceptual Framework**	**Design /Method**	**Sample/ Setting**	**Major Variables Studied and Their Definitions**	**Measurement of Major Variables**	**Data Analysis**	**Study Findings**	**Strength of the Evidence**
Ballesio, et al. (2021). Does Cognitive Behavior Therapy for Insomnia Reduce Repetitive Negative Thinking and Sleep-Related Worry Beliefs? A Systematic Review and Meta-analysis.	NA	Meta Analysis: Can CBT-I reduce and improve repetitive negative thinking (RNT) in patients with insomnia?	15 Studies included with 1,058 participants total.	IV=Cognitive Behavioral Therapy for Insomnia DV= Repetitive Negative Thinking (RNT) DV= Depression and Anxiety	Hedge's g, Cochran's Q, and Higgins's I	Effects on general worry: p=0.017, CI=-0.75 to -0.07 at 95%, Effects on sleep related worry: p<0.0001, CI= -0.92 to -0.49 at 95%, Effects on depression: p=0.015, CI= -0.69 to -0.07 at 95%	CBT-I showed to have a moderate and significant impact on general worry, a significant and large effect on sleep related worry, and a significant and moderate effect on depression symptoms.	Strengths: Assessment of multiple factors of repetitive negative thinking (general worry, sleep related worry, and rumination). RCT were the only studies analyzed, with standard measures of worry and rumination used. Limitations: Small number of studies included due to narrow inclusion criteria. This impacted the statistical power of the meta-analysis. Outside variables that could have impacted the effectiveness of CBT-I were not analyzed. Impacts to practice: This meta-analysis shows that CBT-I has an impact on general worry, sleep related worry, and depression. This verifies the importance of addressing the thought aspect of CBT-I treatment. USPSTF Grading: B

Table 3. Literature Review Matrix continued

Boullin et al., (2016). Group vs. Individual Treatment for Acute Insomnia: A pilot study Evaluating a" One-Shot" Treatment Strategy	NA	RCT: Is group CBT-I as effective as individual CBT-I in a "one-shot" session for those with acute insomnia?	N=28 individuals between the ages of 18 and 60 in the acute phase of insomnia. No CBT-I experiences and not on sleeping medications. Only 3 individuals failed to complete the study. The study took place in the United Kingdom.	IV= "one-shot" CBT-I, group sessions, Individual sessions DV= Insomnia severity index scores, depression symptoms, anxiety symptoms, sleep quality.	T-testing, mixed ANOVA, multivariate ANOVA, and Cohen's d	Effects on Insomnia Severity: d=2.27 Effects on Depression Symptoms: d=1.28 Effects on Anxiety Symptoms: d= 1.26	CBT-I implemented in "one-shot" group and individual sessions were both equally impactful on insomnia severity, sleep quality, and symptoms of depression and anxiety. High Cohen's d effect sizes were measured.	Strengths: This study shows that CBT-I can be conducted in an intensive and brief manner without compromising effectiveness and quality. Limitations: Small self-selecting sample, small group sizes (N=4) that may not be generalizable, and large differences in the measure of adherence. Impacts to practice: This study shows that CBT-I treatment can still be effective in a "one-shot" manner either in individual or group sessions. USPSTF Grading: B

Table 3. Literature Review Matrix continued

Dewa (2017). Insomnia in a prison population: A mixed methods study.	NA	Systematic Review/ Meta Analysis	Multiple prison populations in the UK, as well as prison staff, sleep researchers, and inmates. Over 84 prisons, and 237 prisoners.	IV: Treatment pathways for insomnia DV: Management of insomnia in prison populations	Chi-squared testing, independent t-testing, and Multivariable logistical analysis	Prevalence of Insomnia: 61.6% (95% CI, 55.4%–67.8% Dysfunctional Beliefs and Attitudes About Sleep: p= 0.001, (95% CI, 1.21-1.87)	Effectiveness of treatment methods focused on the use of psychological therapies rather than medications. CBTI was the first line treatment suggested. Hypnotics were used in times of crisis and for short-term durations only.	Strengths: Use of both qualitative and quantitative data, treatment pathway created by both inmates and staff, studied both men women, people of all ages, and groups of ethnic minorities. Limitations: differences in security levels, location, and policy can affect generalizability, also possible reporting bias with those interviewed. Impacts to practice: This study provides an overview of the effectiveness of many insomnia treatment methods applied specifically to a prison population. Information comparing the use of medications and psychological methods to address insomnia. USPSTF Grading:

Table 3. Literature Review Matrix continued

Ellis et al., (2015). Treating Acute Insomnia: A Randomized Controlled Trial of a "Single-shot" of Cognitive Behavioral Therapy for Insomnia	NA	RCT: Can a single 60-70 min session of CBT-I and a self-help pamphlet be effective at treating acute insomnia?	N=40 individuals recruited from regional media campaign in Northeastern UK. 4 subjects were excluded because 3 refused to take part and one planned to attend alternative CBT-I therapy.	IV= single 60-70 min session of CBT-I DV= insomnia severity scores, and insomnia symptoms	Independent t-testing, chi-square analysis, multivariate analysis of variance, significance level on P< 0.05	Effect on Insomnia Symptoms: d= 1.02 Effect on Insomnia Severity Scores: $p<0.003$, $\chi 2= 8.64$ Differences Between Control and Treatment Group: $p<0.01$, $\chi 2= 7.62$	Implementation of treatment was significantly more efficacious than that of the control group. Remission rates of 50-60% were seen in the treatment group compared to 10-15% in the control group. Symptoms of insomnia decreased, and severity scores went down	Strengths: Equal number of males and females recruited and divided into each group. Results show that single session CBT-I therapy is effective, this has social and economic implications and can decrease costs of chronic insomnia treatment. Limitations: Self-selecting sample of participants, those taking sleep medications were excluded from the study. Follow-up times may not show the sustainability of this treatment method. And adherence to the intervention was not strictly monitored. Impacts to practice: This study shows potential and efficacy in the implementation of a single session of CBT-I. This could increase Pt interest in this intervention and greatly decrease costs. USPSTF Grading: B

Table 3. Literature Review Matrix continued

McCrae et al., (2018). Efficacy of Brief Behavioral Treatment for Insomnia in Older Adults: Examination of Sleep, Mood, and Cognitive Outcomes	NA	RCT: Will brief behavioral treatment for insomnia improve sleep, cognition, and mood of older adults?	N= 62, individuals recruited newspaper and community ads, all aged 65 or older, and meeting DSM-5 insomnia criteria. Conducted in Florida, USA.	IV= Brief Behavioral Treatment for Insomnia DV= mood, sleep, and cognition	Multivariate ANOVA, ANCOVAs, Chi-squared analysis, Bonferroni Corrections	Effects on Sleep: ps<0.05 at post-treatment and ps>0.05 at 3 months, total sleep time improving at 3-month follow-up p= 0.07 Effects on Mood: less depression symptoms reported at post-treatment p= 0.5, and at 3 months follow-up p= 0.06 Effects on Cognition: No changes noted	Sleep onset latency, waking after sleep onset, and sleep efficiency improved significantly with this study. No selective mood or cognitive changes were observed during this study and at the 3-month follow-up.	Strengths: Intensive assessment of treatment sessions with scoring by article authors. Participants tested periodically on their understanding of materials and treatment. Detailed instruction provided and logs to track progress. Limitations: The participants had high levels of educational background and their treatment response may not be generalizable to all older adults. The length of intervention and follow-up may not be long enough to assess improvements in cognition or mood. Impacts to practice: Implementation of brief CBT-I will be considered for the older adults in my practice that struggle with insomnia. This is a relatively safe treatment method that avoids further polypharmacy and potential medication effects. USPSTF Grading: C

Table 3. Literature Review Matrix continued

McHugh et al., (2013). Patient Preference for Psychological vs. Pharmacological Treatment of Psychiatric Disorders: A Meta-Analytic Review	NA	Meta-Analysis: If patients are choosing a treatment method, will they be more likely to choose psychological treatment?	34 studies included in the final analysis with a total of 68,612 participants. Studies were excluded if their sample sizes were too small or needed data was unable to be attained.	IV= Patient Preference DV= preference of psychological treatment	Logit scale, Cochrane's Q test, chi-squared distribution, k-1 degrees of freedom	Preference of Psychological Treatment: For those seeking treatment $p<0.001$, when given more than one treatment choice $p< 0.0001$, when expressing treatment preference with a depression diagnosis $p<0.0001$	This study shows that adults prefer the use on psychological treatment methods over pharmacologic options. This applies if they are or are not seeking treatment.	Strengths: High volume of studies included in meta-analysis. Assessment and inclusion of studies were heterogenous to maximize generalizability of findings. Limitations: Evaluation of the option of combination therapy was not an option. No data was included in these studies about illness severity to address treatment urgency. Also, most studies included focus on depression and anxiety and preferences in those with this diagnosis. Impacts to practice: The generalizability of this study may be compromised due to many participants having a diagnosis of depression and anxiety. Preferences may not apply to a diagnosis of insomnia. USPSTF Grading: A

Table 3. Literature Review Matrix continued

Randall et al., (2018). Managing Acute Insomnia in Prison: Evaluation of a "One-Shot" Cognitive Behavioral Therapy for Insomnia (CBT-I) Intervention	NA	RCT: Will a one-shot CBT-I intervention be effective in treating acute insomnia in a prison setting?	N= 30, all participants are white and British, between the ages of 21 and 60. Participants were self-referred to the mental health team in this setting. This study was conducted at a prison setting in Northeast United Kingdom.	IV= One-Shot CBT-I intervention DV= Insomnia severity, depression symptoms, anxiety symptoms	Paired t-tests, Cohen's dz's	Effect on Insomnia Severity: t[29]= 12.65, p< 0.001 Effects on Anxiety Symptoms: t[29]= 5.03, p< 0.001 Effects on Depression Symptoms: t[29]= 4.88, p< 0.001 Effects on Sleep Quality: Total sleep time- t[29]= 4.93, Sleep efficiency- t[29]= 5.64, sleep latency- t[29]= 5.92, waking after sleep onset- t[29]= 5.57	Significant reductions in insomnia symptoms, anxiety, depression, and subjective sleep quality were observed. Overall, 73% of prisoners remitted at the one-month follow-up.	Strengths: routine assessment on improvement in symptoms, optional additional support and instruction for participants, and participants gathered data through sleep logs that was helpful in assessing sleep related variables. Limitations: There is no control group due to ethical concerns of not treating a vulnerable population. The follow-up period for this study was relatively short and did not track relapse potential. This study may not be generalizable due to variations between prison settings. Impacts to practice: This intervention could successfully be implemented in the prison environment I am studying with minor changes to the resources taught and provided. Considerations will also need to be made regarding changes in the environment and routines of the prison. USPSTF Grading: A

Table 3. Literature Review Matrix continued

Ritterband et al., (2009). Efficacy of an Internet-Based Behavioral Intervention for Adults with Insomnia	NA	RCT: Is an internet-based form of CBT-I effective at treating insomnia and impacting subjective sleep quality?	N= 44Participants were recruited through newspaper ads, online postings, radio broadcasts, flyers, announcements, and physician referral. This study took place in Virginia, USA. They were between the ages of 18-65 and met DSM-IV criteria for "primary insomnia".	IV= Internet based CBT-I (SHUTi) DV= Severity of insomnia, Subjective sleep quality measures	One-way ANOVAs, chi-squared tests, repeated-measures ANOVAs, paired-sample t-tests,	Effects on Insomnia Severity: insomnia severity scores at 6.59 (CI=4.73-8.45 at 95%) compared to 15.50 scores in control group. Effects on Sleep Variables: waking after sleep onset- p≤ 0,001, CI= 34-76% at 95%, sleep efficiency- p= 0.006, CI= 9-22% at 95%, nighttime awakenings- p= 0.005, CI 16-56%	Statistically significant improvements were noted for those using SHUTi. Participants in the intervention group had remission rates of 73% at post assessment compared to 0% in the control group. There was a 55% decrease in waking after sleep onset, a 16% increase in sleep efficiency, and a decrease in 36% of nighttime awakenings for those in the internet group.	Strengths: Automated reminders to complete sleep diaries, new activities, and to practice their learned strategies. Interactive use of visual aids, quizzes, and brief games. Very low attrition rate. Limitations: Sample size is small and homogenous. Individuals include did not have comorbidities making this study less generalizable. Findings only based on self-report measures. Impacts to practice: This study helps verify that internet-based CBT-I methods are relatively similar in effectiveness to other modalities. USPSTF Grading: Moderate

APPENDIX B

CLINICAL PRACTICE GUIDELINE

Insomnia Treatment in Correctional Settings: A Clinical Practice Guideline for Cognitive Behavioral Therapy Implementation

Aim and Scope:

This guideline is intended to provide a non-pharmacological treatment recommendation for insomnia in a prison setting. The guideline was created systematic reviews of clinical evidence. It addresses the efficacy of psychological treatment methods as an alternative to the use of sleeping medications.

Definition of Terms:

- Insomnia- a condition characterized by difficulty falling asleep, staying asleep, or waking up too early.
- Cognitive Behavioral Therapy for Insomnia (CBT-I)- a non-pharmacological treatment method that aims to improve sleep habits and address negative thought patterns related to sleep.
- Non-pharmacological- treatment that does not involve medication.
- Medication Adherence- the degree to which a patient follows a prescribed medication regimen.
- Remitting- the disappearance of signs and symptoms of a condition.

Background:

Insomnia is a highly prevalent condition, especially in prison populations, where increased rates of mental health disorders, substance abuse, and stress of incarceration likely contribute to its onset and diagnosis (Randall et al., 2019). Insomnia in corrections settings can lead to increased suicidal ideation, suicide attempts, suicide completions, anger, aggression, impulsivity, and the overuse of healthcare resources, putting both inmates and staff at risk (Randall et al., 2019). Although sleeping medications are commonly prescribed, they are marked with warnings of abuse and misuse. Inmates often sell, trade, and inappropriately use these medications (Dewa, 2017). Cognitive Behavioral Therapy for Insomnia (CBT-I) is a non-pharmacologic treatment method that has been shown to be effective in reducing symptoms and remitting insomnia, making it a promising alternative for this population (Randall et al., 2019).

Data Collection:

In reviewing the literature on this topic, the databases CINAHL Complete, UpToDate, PsychInfo, and PubMed were used. Keywords used to search for research articles were insomnia, CBT-I, Cognitive Behavioral Therapy for Insomnia, prison, sleep aids, nonpharmacologic, chronic insomnia, acute insomnia, psychological, and sleeping medications. This resulted in 473 articles. Once duplications and topics not relevant to this quality improvement paper were removed 11 articles remained and were included in the full text review. The types of articles included are as follows: 5 randomized control trials, 1 systematic review, 2 meta-analyses, and 3 CBT-I informational resources and manuals. When reviewing the literature, the following themes emerged; CBT-I is the first line treatment for insomnia, CBT-I is effective as a “one shot” method, there is equal effectiveness between treatment modalities (online, groups, individually), and insomnia is a larger problem within the prison setting.

Assessment:

Throughout the review of literature Cognitive Behavioral Therapy for Insomnia was shown to greatly improve symptoms of insomnia and even lead to complete remission. Symptoms of anxiety and depression also were shown to improve as CBT-I was effective in addressing insomnia. The safety of prison settings are also expected to improve as CBT-I can decrease aggression, anger, impulsivity, and suicide thoughts/attempts that go along with severe insomnia presentations. Both internet based and single session treatment options are shown to be as effective as individual and group CBT-I conducted face-to-face.

Recommendation

The implementation of Cognitive Behavioral Therapy for Insomnia as instructional videos added to the inmate tablet system, providing a non-pharmacological sleep resource that can be utilized by all.

Implementation:

- Verification that video resources can be implemented in a course like format on the current Department of Corrections tablet system. The tablet content coordinator will be involved in this design stage.
- CBT-I video resources will be developed using already formulated resources including the McQuaid, Sze, and Otilingam (2021) Cognitive Behavioral Therapy for the Treatment of Insomnia (CBTi) Treatment Manual and Jacobs (2022) Clinical Training Manual for CBT-I.
- These videos will be created in collaboration with clinical therapists, mental health providers, the mental health nursing staff, and the mental health department supervisor using already created guides and resources.
- Four videos will be created, one on each component of CBT-I, each lasting about 15 minutes:
    - *Sleep Education*- How insomnia develops, disposing, precipitating, and perpetuating factors in insomnia, sleep hygiene, and how sleep signals and the circadian rhythm function in the brain.
    - *Sleep Restriction Therapy and Stimulus Control*- only going to bed when tired, using the bed primarily for sleep, limit time spent in bed if not able to sleep, waking up at a regular time regardless of sleep obtained that night, avoiding naps during the day.
    - *The Cognitive Components of Sleep*- adjusting negative thoughts and beliefs about sleep and replacing them with alternative positive thoughts and engaging in practices like scheduling a daily “worry time” at least 3 hours before bed.
    - *And Measures to Counter Arousal*- The teaching of relaxation techniques such as diaphragmatic breathing, 4-7-8 breathing, and progressive muscle relaxation.
- Video content will be adjusted for the use in a prison setting (identifying a “non-sleep” space withing the cell, so the bed is used more for just sleep).

- Basic anonymous satisfaction screening questions will be added at the end of each instructional video allowing for inmate input and guidance for future updating of these resources.
- Providers, therapists, and mental health nursing staff will be encouraged to refer their patients to this resource as an alternative to medication treatment for sleep.
- These four CBT-I instructional videos will be added to the inmate tablet system for inmates to access.
- An electronic announcement will be broadcasted through the tablet system making inmates aware of this new sleep resource and educating them on how to utilize this resource.
- These videos will be available in the resource and learning section of the inmate tablet system. The techniques taught in these videos can be integrated into daily activities and even practiced while watching the video.
- Inmates can view these video resources at their leisure, as many times as they wish.
- Use of this video resource can be evaluated in reviewing satisfaction responses as well as the amount these videos were watched.
- Videos will be updated periodically as new evidence-based research becomes available. Updated videos of new relaxation techniques, breathing instruction, and mindfulness practices can also be uploaded at this time.
- If resources are available there is the future possibility to conduct face-to-face group sessions teaching CBT-I content.

Barriers and Limitations:

There are some anticipated challenges and barriers to implementation of this intervention. One challenge will be to implement these video resources in a way that is easy to find, access, and navigate on the tablet system. The largest barrier anticipated will be patient preference for medications over therapy-based treatment options. Some providers may feel pressured to prescribe a sleeping aid medication due to patient request even though CBT-I is considered first line treatment. There is also the risk that patients will be referred to CBT-I resources but not follow through in watching videos and learning the content. Some may watch some of the videos and not complete the series on all CBT-I components. To address this possible barrier, patients and providers will be electronically educated on the impacts and effectiveness of CBT-I as an intervention, and providers will be encouraged to refer patients to these videos. Overall, the effectiveness of this intervention lies in the hands of the participants willingness to engage and practice CBT-I strategies and techniques.