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A Review of the Effects of Different Types of Stigmas on the Retention Rates of Patients in Medication-Assisted Treatment and How to Combat the Problem

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A Review of the Effects of Different Types of Stigmas on the Retention Rates of Patients in Medication-Assisted Treatment and How to Combat the Problem.

by

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Abstract

It is difficult to turn on the news without hearing about the opioid epidemic or a recent opioid overdose. There is hope because there is a treatment to help prevent this epidemic. That treatment is known as medication-assisted therapy (MAT), where patients can present and, if they meet the criteria, can be given a prescription for buprenorphine/naloxone combination medication. Treatment with buprenorphine/naloxone has been shown to be a highly effective treatment for substance use disorder (SUD). Even though it has been proven that this combination works, less than 20% of patients diagnosed with SUD present for treatment. This study focused on how patients diagnosed with SUD attending a MAT program perceive internalized stigma before and after an educational program on self-stigma. A combination of pre- and post-questionnaires and an educational program on combating self-stigma were presented. The results of the pre-test survey indicated that overall, internalized stigma was moderate, with a mean average of 2.41%. The post-survey results indicated that those surveyed remained in the moderate category with a mean average of 2.09%. This indicated the educational program influenced the lowering of self-stigma but did not significantly lower scores, meaning more work is needed. If practitioners are to combat the opioid crisis, practitioners must be aware and understand that patients' self-stigma has real-world effects which could lead to relapse, overdose, and possibly death.

Keywords: buprenorphine, opioid use disorder (OUD), opioids, overdose, medication-assisted treatment (MAT), self-stigma

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Author,

Pamela Cox

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Problem Recognition

The existence of the opioid crisis has been in the news for some time and is well-known. A lesser-known fact about the crisis is that over 100,000 people died from overdose between April 2020 and April 2021, a 29% increase in deaths related to opioid overdose from the prior year (Anvari et al., 2022; Bagley et al., 2023). Of the patients who are diagnosed with opioid addiction disorders (OAD), only 10-20% present for medication-assisted treatment (MAT) (Cooper et al., 2020). This treatment has been shown to be effective in retaining patients in therapy, reducing misuse of opioid medications, and reducing deaths from opioid overdose (Husain et al., 2023). If treatment with opioids is highly effective, why are so few patients presenting for treatment? The major hurdle is multiple types of stigmas that patients experience when seeking treatment (Dickson-Gomez et al., 2022). The following literature review confirms stigma exists and leads to reluctance to obtain care.

Problem Statement

Stigma is the leading factor in patients stopping MAT, leading to relapse, and potentially contributing to higher death rates due to overdose. Education to combat stigma would be effective in retention and preventing relapse, thereby decreasing deaths due to overdose.

Literature Review

The review shows patients diagnosed with substance use disorders (SUD) experience several types of stigmas. While there are subgroups of stigmas, the significant themes are self-stigma (Allen & Harocopos, 2016; Anvari et al., 2022; Bagley et al., 2023), provider stigma (Anvari et al., 2022; Bagley et al., 2023), and cultural stigma

(Allen & Harocopos, 2016; Treloar et al., 2022). Self-stigma is the stigma the patient places on themselves for having been addicted to opioids, but surprisingly, it also occurs because the patient feels "unclean" as they are reliant on medication to help them stay off opioids (Allen & Harocopos, 2016; Anvari et al., 2022; Bagley et al., 2023). Provider stigma occurs due to provider attitudes toward the patient as a “user,” influencing how the provider writes treatment regimens for tapers rather than prescribing medications for long-term use (Anvari et al., 2022; Bagley et al., 2023). Cultural stigmas view people attending MAT programs as people who make "bad choices" and are "dirty." These beliefs lead to political decisions for substance use center placement in lower-income neighborhoods, which patients feel further stigmatizes them (Allen & Harocopos, 2016; Treloar et al., 2022). Many patients, particularly the younger population, diagnosed with SUD drop out within the first 6 months of therapy (Bagley et al., 2023). Education that combats stigma on all levels increases self-esteem and encourages more people with SUD to seek treatment (Lefebvre et al., 2020; Slavova et al., 2020).

Self-Stigma

In a single-site qualitative study, Bagley et al. (2023) interviewed 19 young people, ages 18-29, with a flexible interview guide. Characteristics required for the study were the participant had to be diagnosed with opioid use disorder (OUD), "receiving care at an outpatient program, and spoke English (p. 105)."Of the population interviewed, "12 identified as male, seven as female, and one as nonbinary. Fifteen participants identified as non-Hispanic White, two as Hispanic/Latino, two as multiracial, and one as Asian American (p. 105)."The research was conducted from June 2019 to February 2020. The research was provided only to those attending an urban safety-net hospital in Boston,

meaning they received treatment regardless of their ability to pay. The objective of Bagley et al. (2023) was to discover the experiences this population had with opioid agonist treatment (OAT), the sources of stigma, the impact stigma had on them, and to determine what kinds of stigma the participants had with "family interactions, healthcare professionals, and social networks (p. 105)." This study found this age group is more ambivalent to MAT as they perceive the medication as a "crutch" (Bagley et al., 2023, p. 105). These young people also reported concern about withdrawal from the medication. Most stated this could last for up to 2 months for MAT medications, whereas withdrawal from opioids only lasted about 7 days.

One limitation of this study is that most of the participants were non-Hispanic white males. Also, this study only included patients actively seeking treatment. Bagley et al. (2023) felt input from the population not seeking treatment would need a voice on this issue. Another limitation was the clinic involved in this study only received buprenorphine. Bagley et al. (2023) questioned if patients treated with naltrexone would report a decreased risk of misuse of medications. The study was conducted in an area where treatment is widely available and might have different results if the area of study had been more rural (Bagley et al., 2023).

Dickson-Gomez et al. (2022) interviewed two groups in a qualitative, in-depth semi-structured study. The first group was participants actively using heroin, fentanyl, and opioids for non-medical purposes. The second key group included in the study were those who work on the service side of MAT therapy including behavioral therapists, specifically practicing in MAT programs, first responders, pharmacists involved in filling prescriptions for buprenorphine-containing medications, harm reduction specialists, and

personnel, including judges, from drug courts. The research was conducted across three states, Connecticut, Kentucky, and Wisconsin, between January 2019 and February 2020. Dickson-Gomez et al. (2022) discovered that self-stigma was enacted in two ways. First, the stigma related to being diagnosed with a SUD, and second, the stigma related to attending a MAT program (Dickson-Gomez et al., 2022). The main limitation of this study was the lack of breakdown of the respondents by group, race, and gender, which might have provided more valuable insights into the research.

Minorities

Non-Hispanic white patients have higher rates of attending MAT therapy (Husain et al., 2023); therefore, in studies mainly using patients in MAT, minorities are often overlooked. A qualitative study using semi-structured telephone interviews completed by Husain et al. (2023) compared the populations to determine what stigma minorities face in contrast to their non-Hispanic white counterparts. Forty-one adult patients, aged 18 or older, diagnosed "with OUD and not currently being treated with OAT" were included in the study. However, they included participants even if they had previously been in a MAT program (Husain et al., 2023, p.1). The study was conducted from September 2020 through February 2021. The participants were all from Boston, with a mean age of 53.2 (Husain et al., 2023). The breakdown of participants in the study was "24 (58.5 %) Non-Hispanic Black, 9 (22.0 %) Non-Hispanic White, 3 (7.3 %) Hispanic/Latinx, 1 (2.4 %) Asian, and 4 (9.8 %) multiracial (Husain et al., 2023, p. 3).” Due to the small sample size, Husain et al. (2023) determined to break the study into two groups. The first group comprised non-Hispanic white participants, and the second group included all the minority populations. Less than half of those participating had prior MAT therapy.

Husain et al. (2023) discovered that in the minority population, there was an overwhelming response to anticipated stigma, which fell into two distinct areas, one being a SUD diagnosis and the other falling into the stereotyped cultural role of being in the minority. Overwhelmingly, this population preferred social support and residential treatment to MAT programs due to anticipated stigma (Husain et al., 2023). This study was conducted during the lockdowns of the COVID-19 pandemic. Husain et al. (2023) felt this weakened the relationships they might have built with the respondents had they been able to have face-to-face interviews, where they might have been able to pick up on non-verbal cues. In addition, Husain et al. (2023) reported interview audio was of poor quality.

Anvari et al. (2022) conducted a qualitative study at the University of Maryland Drug Treatment Center (UMDTC), which included “a community-based, outpatient substance use treatment center in West Baltimore (p. 1).” The data was collected between September 2019 and March 2020. Participants involved in the study were 20 current patients at the treatment center. Most of the patients identified as African American and were male. The study also included providers, staff, and four PRS who worked at the treatment center for a total of 8 respondents. Anvari et al. (2022) determined a significant form of stigma was due to self-stigma of feeling "less than" for relying on long-term therapy. In addition, Anvari et al. (2022) found other patients with SUD who did not attend MAT therapy also stigmatized their peers and considered them "junkies," which had a profound impact on how MAT program attendees felt about themselves for being “dirty.” Anvari et al. (2022) felt the definition of the word stigma might be considered

subjective, though measures were taken by conducting weekly meetings to clarify information.

Provider Stigma

In a qualitative study, Allen and Harocopos (2016) compiled data from 93 in-depth interviews of patients 18 years and older. The study was conducted in New York City from August 2013 through January 2015. This study included a sub-sample of 42 participants ranging from 18 to 49 years with a mean age of 27. "Twenty-nine identified as male and 13 as female. Thirty-five were identified as non-Hispanic White, six as Hispanic or Latino, and one as non-Hispanic Black/African American. Thirty-eight identified as heterosexual, three as bisexual, and one as homosexual (Allen & Harocopos, 2016, p.82)." These participants were included because they reported, "non-medical opioid antagonist (OA) use in the previous 12 months and had used or diverted non-prescribed buprenorphine (Allen & Harocopos, 2016, p. 81)." The participants all had histories of using non-medical opioid analgesics and were all residents of New York City.

Allen and Harocopos (2016) recruited through community-based harm reduction specialists (HRS), outpatient drug treatment programs, snowball effect by recruiting existing participants, and street recruitment. Allen and Harocopos (2016) found patients diagnosed with SUD felt their prescribers discriminated against them. All participants in the study related stories where they felt a medical professional had stigmatized them either by their prescribing practice or by using stigmatizing language (Allen & Harocopos, 2016). Allen and Harocopos (2016) felt one limitation of this study was in the non-prescribed use of OA medications among non-opioid dependent patients. Allen and

Harocopos (2016) felt that this group would likely use the medications for different purposes.

Dickson-Gomez et al. (2022) also found prescriber attitudes affected their prescribing treatment programs. Many of the prescribers in this study believed that a MAT regimen should be for a limited time and focused on tapering the medication (Dickson-Gomez et al., 2022). Dickson-Gomez et al. (2022) found practitioners did this without regard to patient preference or the newest best-practice evidence. Dickson-Gomez et al. (2022) state the best practice model is to prescribe medications for longer-term use. Dickson-Gomez et al. (2022) found another reason for prescriber bias: distrust of pharmaceutical companies, and most believed the initiative to use longer-term treatment was so these companies could increase their profit. Prescribers also believed patients often asked for higher dose medications to divert the medication. They felt most of their MAT patients would likely be involved in the criminal justice system (Dickson-Gomez et al., 2022).

In a perspective paper, Cooper et al. (2020) state there is new evidence showing many pharmacists, particularly in high-risk areas such as central Appalachia, do not fill prescriptions for patients receiving medications from a MAT program. This perspective found that 47% of surveyed pharmacists in West Virginia stated they did not stock buprenorphine (Cooper et al., 2020). Also, 25% stated they did not stock buprenorphine/naloxone combination medication (Cooper et al., 2020).

Cooper et al. (2020) also stated in a 2019 survey of 130 Pennsylvania pharmacists, most were not supportive of buprenorphine treatments. This study discovered the reason for this supply-side reluctance is due to attempts to curb diversion (Cooper et al., 2020).

The root cause of this is that pharmacists lump buprenorphine into the same category as opioid analgesics, which means that the treatment for the problem is negatively attached to the cause of the problem (Cooper et al., 2020). A further look into this issue showed that pharmacist attitudes were linked to the Drug Enforcement Agency (DEA) cap on medications (Cooper et al., 2020). Pharmacists stated if they went above the cap, they feared investigation (Cooper et al., 2020). Due to these beliefs, pharmacists were capping medications, rationing pills, and, in many cases, refusing to fill prescriptions (Cooper et al., 2020).

Cultural Stigma

Bagley et al. (2023) found young adults aged 21-29 reported difficulty obtaining sponsors when trying to attend 12-step programs. Bagley et al. (2023) stated that non-MAT patients viewed MAT users as "dirty," and often, very heated debates on this subject took the place of actual therapy in meetings. Others stated that to obtain a sponsor, they lied about their treatments to avoid stigma (Bagley et al., 2023).

In another study by Allen and Harocopos (2016), participants stated they had experienced stigma for OAT therapy through popular media, which affected how family and friends treated them. The study by Husain et al. (2023) found cultural stereotypes tended to show minorities as having more issues with opioid addiction. However, the research showed the increase in opioid deaths is occurring within the non-Hispanic white population. Anvari et al. (2022) found that African American males tended to drop out of therapy because of discouragement from family members.

In a prospective single-arm, multicenter, open-label trial of monthly buprenorphine extended-release (BUP-XR), Treloar et al. (2022) conducted interviews of 36

participants, 25 men, and 11 women, ages 18-65. Treloar et al. (2022) found political stigma considerably affected how patients attending OAT programs were treated. Treloar et al. (2022) discovered most OAT sites were in lower-income neighborhoods, which made it difficult for patients to go for treatment without being noticed. Treloar et al. (2022) found many of these sites were not near areas where people worked, which caused patients to be away from work for extended periods, causing work stigma. This study was conducted in various healthcare settings in Australia (Treloar et al., 2022). More research is needed to determine if there is a correlation in findings between Australia and the United States.

Diversion

The study by Allen and Harocopos (2016) found the main reasons for diversion were not as expected. Most stated that their main reason for taking MAT treatment medications that were not prescribed to them was to combat withdrawal if they were unable to obtain their drug of choice, while others reported they used non-prescribed MAT treatment for self-detox (Allen & Harocopos, 2016). No participants in the study stated they diverted medication for euphoric effects (Allen & Harocopos, 2016). Only two participants in the study stated they had sold OAT medications, but both reported they did not do this as a significant source of income (Allen & Harocopos, 2016).

Needs Assessment

The Committee on MAT for OUD held workshops to address issues related to the opioid crisis (National Academies of Sciences, Engineering, and Medicine; Health, and Medicine Division; & Board on Health Sciences Policy, 2018). Members of the committee included representatives from federal agencies such as the Centers for Disease

Control and Prevention (CDC), Substance Abuse and Mental Health Services Administration (SAMHSA), the Food and Drug Administration (FDA), the Health Resources and Services Administration (HRSA), and the National Institute on Drug Abuse (NIDA). At this series of workshops, the committee members had experts present on four topics of concern. The first focused on what was known about problems related to MAT therapy and any known gaps in providing effective treatment. The second series focused on where MAT treatments could most effectively be delivered. The third series addressed any challenges providers face with implementing MAT treatment. The last workshop focused on identifying what areas research needed to address.

In March 2019, the committee members presented their findings from the workshop presentations and drew seven conclusions (National Academies of Sciences, Engineering, and Medicine, 2019). They concluded that OUD is a chronic and treatable brain disease; FDA-approved medications for OUD are effective and, if used correctly, save lives; long-term MAT treatment has improved outcomes for patients diagnosed with OUD; a lack of medication availability or therapeutic interventions is not a reason to fail to deliver appropriate medications to treat OUD; sufficient evidence showed patients who could benefit from MAT treatment were not receiving it, and there was evidence to suggest an imbalance in availability to many subgroups particularly those with co-occurring mental health disorders; MAT treatment is effective across the spectrum of treatment settings, including the criminal justice system and failure to address OUD in all settings is a failure to provide adequate treatment and is unethical; and understanding barriers to treatment is crucial.

In their cross-sectional qualitative analysis of 18 articles, Crapanzano et al. (2018) examined social and self-stigma effects on those diagnosed with OUD in MAT programs to determine best practices. Their conclusion maintained that a significant correlation exists between self-stigma and failure to adhere to MAT treatment, but more investigation needs to be done.

The Committee on MAT for OUD found patients diagnosed with an OUD experience a high level of self-stigma, which negatively affects the patient's psychological well-being (National Academies of Sciences, Engineering, and Medicine, 2019). They further found self-stigma included the stigma attached to the patient from family and public stigmatization, which led to negative stereotypes of addiction (National Academies of Sciences, Engineering, and Medicine, 2019). By this, they inferred that self-stigma naturally reduced treatment-seeking and compliance. However, they felt that more research was needed to determine the full impact on those with the disorder not seeking treatment and how it affected those in treatment regarding relapse and retention (National Academies of Sciences, Engineering, and Medicine, 2019).

Kadam et al. (2017) estimated that worldwide, approximately 26-36 million people abuse opiates. Those diagnosed with OUD have a 20-fold increased risk of death (National Academies of Sciences, Engineering, and Medicine, 2019). These deaths come from "overdose, infectious diseases, trauma, and suicide" (National Academies of Sciences, Engineering, and Medicine, 2019, p. 1). In 2017, 47,000 people in the US died from an opioid overdose, mainly related to prescription opioids either medically or by use non-medially (National Academies of Sciences, Engineering, and Medicine, 2019). Kadam et al. (2017) propose relapse rates may be as high as 91% for people with opioid

addictions. According to the NIDA (National Institute on Drug Abuse, 2022), approximately 91,799 people in the US died of overdose in 2020. This figure indicates 44,799 more deaths than in 2017 and shows that deaths due to opioids are trending upward. This number also shows an increase of 21,169 more deaths than the previous year, with most of those overdoses now being related to "street use" of heroin and fentanyl (National Institute on Drug Abuse, 2022).

Wogen and Restrepo (2020) state that self-stigma results in poorer health, lower self-efficacy, reduced quality of life, increased risk for depression, and decreased motivation. Wogen and Restrepo (2020) determined that self-stigma may negatively influence treatment retention and adherence. Poor retention and adherence may lead to stigma label avoidance and, ultimately, a patient dropping from an MAT program and possibly into relapse. Williams et al. (2019) found patients ending a MAT program are at a 5% risk for overdose within the first 6 months of ending treatment.

Many of the states with the highest levels of addiction are along the East Coast (Centers for Disease Control and Prevention [CDC], 2022). In 2019, death rates for overdoses increased in rural areas from 4.0 per 100,000 to 19.6 and had higher deaths related to heroin and fentanyl (Hedegaard, 2021). Frazier et al. (2021) found the 2019 prevalence of substance use disorder for people ages 12 and older in South Carolina was 6.3%, and for North Carolina was 6.5%. According to the CDC (2022), 3,146 of those deaths occurred in North Carolina and 1,739 in South Carolina.

Target Population

Many people receiving OUD treatment during the pandemic were at risk for medication interruption due to social distancing and stay-at-home guidelines. The federal

government responded to this risk by allowing health care providers to serve these patients by alternate measures such as telehealth, telephone, or Internet. This treatment measure increased access as it was user-friendly and convenient, making it easy for patients to initiate. Emerging research shows these patients remained in treatment in comparable numbers to those who received treatment in person (Cole et al., 2021).

For this project, the target audience was 100 adults enrolled in the MAT program at the project site office in Columbus, NC, which covers North and South Carolina patients. The population was of any race or any gender.

Available Resources

The project site program was set up for weekly educational text sessions for therapeutic purposes. These weekly texts provided links to online videos. Often, questionnaires were included in these texts. These educational texts/videos were viewed by patients in the program across North and South Carolina. The provider uploaded the content to the provider's patient caseload through a program called EZTexting®. A link was embedded in the video, which allowed patients to download education forms and questionnaires, or the provider elected to include a survey link in the body of the text.

Desired and Expected Outcomes

The expected outcome of this project was to decrease patient self-stigma by 30%. The desired outcome was that the project would aid in better treatment outcomes for patients, which would lead to improved treatment retention, increased employment, decreased isolation, decreased relapse, and hospitalizations, and ultimately decreased death rates from overdose (Anvari et al., 2022; Ritsher et al., 2003).

Team Selection

The team selection for this project included a DNP project chair, a practice partner, a DNP student, and a professional volunteer. The DNP Project Chair was a nurse educator who holds a DNP degree and RN and CNE certifications. The Practice Partner was a nurse practitioner, holding an AGPCNP-BC certification, and was the nurse practitioner and clinical director of the Project site in North and South Carolina in Columbus, NC. The DNP student held a Bachelor of Science degree in Nursing and was currently enrolled in a PMHNP-DNP program. The Professional Volunteer held a Bachelor of Science degree in Mechanical Engineering.

The DNP Project Chair oversaw the project with the Practice Partner and DNP student. She guided and directed the DNP student in developing and implementing the DNP Project. In addition, she provided feedback to the DNP student and reviewed and critiqued the DNP student's documents/paper. The Practice Partner approved and oversaw the education program and modified the ISMI-9 tool for presentation. He assisted the DNP student in accessing and immersing into the practice area and practice learning environment. The Practice Partner coordinated the education session, uploaded links, and texted information. The DNP student was responsible for planning and implementing the education program, modifying the ISMI-9 tool, and sending the educational program to the Practice Partner for upload. The DNP student was responsible for embedding the modified ISMI-9 questionnaire within the education program. In addition, the DNP student was responsible for creating an educational session, which included a video recording, which the Professional Volunteer aided. The Practice Partner ensured the video link was placed on the website for the appropriate patient caseload. The

DNP student and Professional Volunteer analyzed questionnaire data (Zaccagnini & Pechacek, 2021).

Scope of Project

This project was to provide an educational program to combat OUD stigma in patients attending MAT therapy. This program was provided by a combination of pre-and post-questionnaires and an educational program on combating self-stigma. Together, this framework provided patients diagnosed with OUD with improved evidence-based knowledge to combat self-stigma by learning new skills to aid with coping. The questionnaire was a modified version of the Internalized Stigma of Mental Illness Scale-9 (ISMI-9) (Hammer & Toland, 2017). The modifications made to the tool were to replace "mental illness" with "substance use disorder" and change the word possible to possibly. Permission for the modification was granted by Dr. Joseph Hammer (Appendix A).

The ISMI-9 had nine items in a unidimensional short form. It was “designed to measure internalized stigma of mental illness, with higher scores indicating more severe internalized stigma and lower scores indicating less internalized stigma (Hammer, 2023, p. 1).” The DNP student modified the terms mentally ill and mental illness to a substance use disorder (SUD) to allow the tool to measure the internalized stigma in those with SUD in MAT therapy (Hammer, 2023).

The ISMI-9 measured five themes: “social withdrawal, perceived discrimination, alienation, stereotype endorsement, and stigma resistance (which is measured through reverse score) (Boyd et al., 2014, p. 1).” The topics were chosen based on the conceptualization of the "content domain" (Ritsher et al., 2003, p. 1). The ISMI-9 assumed the respondent would self-identify as having a mental illness (Hammer, 2023).

This project made the same assumption regarding the modified ISMI-9 that the patient would self-identify as having an opioid use disorder.

The modified ISMI-9 used the same scoring system as the ISMI-9 (Hammer, 2023). In scoring items 2 and 9, a reverse code was used before tabulating the score. After reverse-coding, "all item scores were added and divided by the total number of items answered (Hammer, 2023, p. 1)." The final score ranged from 1-4. Upon obtaining the 1-4 score, this project utilized the 4-category method to measure changes in self-stigma (Lysaker et al., 2007).

The ISMI-9 was designed to be a unidimensional tool; therefore, it does not contain subscales and is not intended to score the multidimensions of the five theme areas (Hammer, 2023). This project anticipated the same limitations.

The educational program focused on the five topic areas addressed by the ISMI-9 tool. These areas included education on "social withdrawal, perceived discrimination, alienation, stereotype endorsement, and stigma resistance (Boyd et al., 2014, p. 1)." This program was recorded and sent out as part of the weekly educational text. The Project Partner uploaded the recording so patients could view the video on the Project Site website. The surveys were embedded in the educational program. Patients were encouraged, but not required, to complete the survey before the session. After the session, the surveys were embedded in the video and available for patients to complete. A check box within the form indicated if the questionnaire was pre- or post-viewing of the live session or video.

The information on the survey was anonymous, as results were sent back to a secure computer program specifically designed for data security plans in Capstone

projects (Silver & Lewins, 2020). The data was analyzed by the DNP student and a Professional Volunteer (Issel et al., 2022; Zaccagnini & Pechacek, 2021).

Objectives and Timeline

Objectives

Objectives were established for this DNP project by the Project Lead. The objectives were as follows:

- Specific: MAT patients will have a decrease in self-stigma (Issel et al., 2022).
- Measurable: Achieve a 30% decrease in their self-stigma (Issel et al., 2022).
- Attainable: Improve by 30% from the pre-testing phase to the post-testing phase (Issel et al., 2022).
- Relevant: Approximately 60% of MAT patients report they have indelibly messed up their lives, 60% reported feeling ashamed of themselves, and 51% reported feeling that they do not fit in the world around them (Kadam et al., 2017).
- Time-bound: 3.5-month timeframe (Issel et al., 2022).

Timeline Framework

For this project, the timeline framework was established by Gardner-Webb University using the DNP Scholarly Project Process Model (Zaccagnini & Pechacek, 2021). The proposal for this project was submitted to the Capstone Project Chair in January 2023. Following approval from the chair, the proposal was approved by the Project Partner in August 2023. Goals, objectives, and mission statement were completed during the spring semester of 2023. Theoretical planning, work planning, and an evaluation plan were completed summer semester of 2023. Internal Review Board approval was completed fall semester of 2023. Program intervention, evaluations, data

collection, data analysis, generation of reports, and dissemination of findings were completed spring semester of 2024 (Issel et al., 2022; Zaccagnini & Pechacek, 2021).

Restate the Problem

Stigma is a leading factor in patients stopping an MAT program. To effectively retain patients in hopes of preventing relapse, overdose, and death, patients need to be educated on how to cope with stigma.

Process/Outcome Objectives

The project's first phase began with getting permission to revise the Internalized Stigma of Mental Illness Scale-9 (ISMI-9) from Dr. Joseph Hammer. Permission to modify the tool was received on July 19, 2023. The modifications requested were to replace the word mental illness with substance use disorder and change the word possible to possibly. This tool is an evidence-based practice for measuring stigma in mental illness. An assumption was made that changing the wording would result in an equivalent measure of self-stigma in those diagnosed with a substance use disorder (SUD). The modified ISMI-9 was used as the pre- and post-survey questions.

After obtaining permission, the next step was to create the pre-and post-test survey in Qualtrics. Once this was accomplished, approval was requested and granted by the Project Chair. Pre- and post-surveys were uploaded to Qualtrics on September 7, 2023.

The ISMI-9 was similarly used with an education program that covered five distinct topics. The program covered the issues of “social withdrawal, perceived discrimination, alienation, stereotype endorsement, and stigma resistance (Boyd et al., 2014, p. 1).” The Project Partner and Project Leader determined that the educational

program for this project would need to cover the same topics. The educational program was researched, developed, and completed. The Project Partner approved the video on October 18, 2023.

A run-through launch was conducted on November 29, 2023. During the testing phase, it was discovered that the links to the pre- and post-surveys did not function correctly. A troubleshooting process determined that the issue was with a non-valid link. Links were corrected, and another pre-test was conducted. In this test, the links worked correctly.

The project was launched on November 29, 2023. After the project launch, it was discovered that a formatting issue to the website prevented links from being opened within the educational program. A discussion was held with the web designer. He corrected this issue by placing pre- and post-survey links below the video. A test was conducted, and it was determined that this solution worked well.

The project was closed on December 5, 2023. Project Volunteer reviewed Qualtrics data and determined that the Qualtrics links were disabled.

A closure meeting was held on December 12, 2023. During this meeting, the Project Partner determined that the project had created an environment whereby participants became more engaged in providing verbal feedback. This open dialogue prompted Project Partner to discuss how educational resources could best be utilized in the future. Participants provided feedback that they would like 15-minute videos monthly covering topics relevant to their illness. In addition, patients discussed their feelings regarding how services such as scheduling, billing, and appointments were managed.

Upon discussion at the closure meeting, it was determined that the best way to address these issues was to find an Electronic Medical Record system to integrate these services.

Work Breakdown Structure

A meeting was scheduled to review integrative software programs. During this meeting, it was determined that the two systems had the best chance of meeting all the center's needs. The first of these programs was SimplePractice®. The Project Partner set up a training course with representatives from this service. The training was held on December 13, 2023. The second company that met the criteria for the center's needs was ICANotes®. The Project Partner set up training for this program. The training for this service was held on December 14, 2023.

After the training on both services, a meeting with the Project Partner and Project Leader was held to determine the best option. The two programs were compared, and ICANotes® was determined to be the best choice due to having more security features and access to assessment tools with copyright access in place.

A 30-day trial for ICANotes® was implemented on December 15, 2024. During this time, the Project Leader attended training sessions regarding the integration of ICANotes® into the practice.

On January 15, 2024, the Project Partner and Project Leader met to determine the full launch of ICANotes® software. It was determined that this software met the needs of the center. On January 15, 2024, ICANotes® was fully launched, and integration is ongoing.

Theoretical Underpinnings

A SUD, at the core, creates complex brain pathways that lead to craving, withdrawal, and relapse (Sahani et al., 2022). Research indicated that this disorder is perpetuated by social stressors such as childhood trauma and adverse life events that strain an individual's coping skills. When dealing with SUD, a significant source of stress came from self-stigma, which depended heavily on whether a patient would continue and succeed in therapy (Crapanzano et al., 2018). A lack of coping skills related to self-stigma would likely perpetuate the loop of addiction, leading to a blocked pathway to recovery. To break the cycle, there needed to be an intervention that aided in helping the patient learn to cope with self-stigma so that cravings, withdrawal, and relapse would be averted (Sahani et al., 2022). Patients needed a way to identify where this cycle might be broken and knowledge of what tools they needed to help them cope with the self-stigma they face in treatment. In nursing, it has long been the aim to help patients identify their problem areas and to help them define their goals toward recovery. This principle is the hallmark of Dorothy Orem's (1971) Self-Care Deficit Nursing Theory (SCDNT) (Appendix B).

Orem's SCDNT was based on "six central concepts: Self-care, self-care agency, therapeutic self-care demand, self-care deficit, nursing agency, and nursing care system (Sahani et al., 2022; Zaccagnini & Pechacek, 2021, p. 16)." Self-care was initiated, and performing self-care that works toward life, health, and improved general well-being (Zaccagnini & Pechacek, 2021). For patients with SUD, this meant taking the step to initiate MAT treatment. Self-care agency was whether the patient would provide their own self-care needs. In MAT therapy, this meant that the patient understood they needed

MAT medications and had to attend treatment even though they were faced with self-stigma (Crapanzano et al., 2018). Therapeutic self-care demands the set of activities a patient needs to perform to meet their self-care need goals (Zaccagnini & Pechacek, 2021). In MAT treatment, the patient does not have coping skills designed to combat self-stigma (Crapanzano et al., 2018). Self-care deficit was the difference between what the patient needed to care for him/herself and what he/she could perform (Zaccagnini & Pechacek, 2021). A gap was identified as a self-care deficit if the patient could not provide for all their needs. In MAT therapy, this gap was often the inability to combat or cope with self-stigma, leading to a lack of retention in the MAT program. Falling out of MAT therapy meant the patient ended up relapsing (Crapanzano et al., 2018).

The nursing agency was what the nurse provided to help meet the patient's therapeutic needs. The nursing system was the full scope of nursing care provided by an agency to meet the therapeutic needs of each patient (Seed & Torkelson, 2012; Zaccagnini & Pechacek, 2021). Psychiatric providers were uniquely positioned to meet patients diagnosed with SUD where they are and begin combatting self-stigma by showing respect and concern and valuing the patient's decisions for themselves. These actions build trust. Once there was trust between the patient and the provider, knowledge was shared, and the provider began to aid the patient in combatting self-stigma, which helped put the patient on the right path toward recovery. The steps were the basis of Orem's theory (Orem, 1971; Seed & Torkelson, 2012).

According to Seed and Torkelson (2012), the language of recovery was ingrained in Orem’s SCDNT because the primary purpose of this theory was to provide an outline for health care. This purpose was to promote and maintain health and to provide for

rehabilitation and recovery. Utilizing Orem's SCDNT, this project had a framework that allowed for the creation of an environment in which recovery was facilitated by providing a needed education program on how self-stigma worked and how patients could learn to cope and combat the underlying stressors so they could have an overall increased sense of well-being. The hope was that fulfilling the need for education to increase self-stigma coping skills would lead to an understanding and overall decrease in lapse in MAT therapy by helping patients stay committed to their MAT goals toward recovery.

Work Planning

Project Management

The ongoing opioid crisis led to the conception of this project. When reviewing the literature for answers as to why the crisis continues, data showed a correlation exists between self-stigma and failed adherence to MAT treatment. A continued review indicated self-stigma could be combated with educational programs that help enhance knowledge and coping skills.

The chosen population for the project included approximately 100 patients from a rural opioid treatment program in the southeastern United States. The Project Site covered two states. These states, North and South Carolina, were included in the project. An educational video program focused on evidence-based knowledge in five areas and was presented to the selected patients via text. The areas for education included "social withdrawal, perceived discrimination, alienation, stereotype endorsement, and stigma resistance (Boyd et al., 2014, p. 1)." A 60-minute training session was provided through weekly texts and placed on the company website. The goal of the project was to change

perceptions regarding patients' self-stigma. A pre-and post-survey based on the ISMI-9 was provided before and after the educational session with the goal of a 30% decrease in self-stigma.

A work breakdown structure (WBS) was created to address each step of the project to ensure the project goals were met (Appendix C). The project team met and determined five major categories based on the DNP Project Process Model (Zaccagnini & Pechacek, 2021) in conjunction with the Nursing Process Model (Toney-Butler & Thayer, 2023). These five themes included problem recognition/assessment, planning, implementation, monitoring, and evaluation. Upon discussion, each of the five categories was broken down into subcategories to further determine the next steps for each process.

To determine the problem recognition, the project leader completed a literature review. Upon completion of the review, a problem was identified. Further into the process, the project leader completed a needs assessment, which determined ongoing concerns regarding self-stigma among patients in the MAT program. The review also determined avenues previously providing evidenced-based solutions to the problem.

In the next phase of the work breakdown, structure, goals, and objectives were determined to flesh out the project scope. The project team was determined during this step, and an initial meeting was arranged. Early phases of the project plan were discussed at this meeting, and subsequent meetings, and a framework was outlined. This step was finalized on August 28, 2023. Steps that followed include Quality Improvement (QI) approval, implementation, data collection, and evaluation. The QI approval step was completed in the fall of 2023. The implementation, monitoring, and evaluation processes were completed in the spring of 2024.

After QI approval, the pre-and post-test surveys and the educational video were implemented. Following implementation, ongoing monitoring of the schedule and timeline occurred. Once the educational program was completed and data had been collected, the last phase occurred, whereby data was entered, verified, and evaluated.

The resources needed to create the educational program included the modified ISMI-9 for pre- and post-test surveys and an educational video covering "social withdrawal, perceived discrimination, alienation, stereotype endorsement, and stigma resistance (Boyd et al., 2014, p. 1)." A Canva presentation covering these areas was completed. This presentation was shown in the background while a window box remained open to allow the audience to view the project leader as the material was covered. The company website was the source of the video. The Practice Partner aided in uploading the video presentation to the website. The pre-and post-survey were also uploaded to the website. The pre-survey was discussed briefly, along with a disclaimer that the survey was anonymous and participation was not mandatory. Upon completion of the education video, a brief discussion regarding the post-survey was held, with a disclaimer stating the survey was also anonymous and participation was not mandatory.

Cost/Benefit Analysis

Indirect

The cost of a camcorder was $65.98. Currently, the selected project site owns a small digital camcorder for recording; therefore, a camcorder will not need to be purchased. The current cost for the website web host was approximately $119.40/year or $14.99/month. The project team had agreed to the utilization of 30 days for the project. The cost of hosting the educational program was approximately $14.99. The Project

Partner's current salary was $240/hour. It is estimated the Project Partner was needed for the project for approximately 30 minutes for $120/total. The text messaging service cost was approximately $1.45/month. The total cost of the program was estimated to be $136.44.

Direct

The project team agreed that there would be a $0 direct cost for the actual implementation of the project. The webcam was set up to provide educational training, the web hosting was already set to host weekly educational programs, and the Project Partner texted and uploaded educational programs as a course of his regular work responsibilities.

Benefit

The program's benefits were expected to significantly outweigh the indirect costs. The team brainstormed ways they felt the educational program would be beneficial and determined increasing the knowledge of MAT patients would decrease their self-stigma and provide more information on ways to cope. It was felt this would give the patients confidence to continue MAT treatment and reduce relapse. The team felt that reducing relapse would decrease the overall risk of overdose in these patients. A decrease in the risk of overdose would decrease the risk of death due to overdose among the patients as well, which cannot be given a monetary value as human life is priceless. In addition, the team felt there were other benefits to the patient population, including decreased risky behaviors, legal issues, violence in the home, increased work satisfaction, stability of the family, and financial responsibility. In addition, the Project Provider was interested in taking the data a step forward by utilizing this project as a starting place to determine the

need to develop a tracking system for relapse rates. Overall, the team agreed the benefit of the educational program far outweighed the cost of implementing the program.

Evaluation Planning

Input

A logical model was utilized for the process of this project (Appendix D). Self-stigma means taking a public stereotype or prejudice and internalizing it (Wogen & Restrepo, 2020). The result was low self-esteem and self-alienation, which impacted recovery. This leads to poor health outcomes. Ultimately, issues with self-stigma resulted in a lack of self-efficacy, decreased attainment of life goals, and a reduction in quality of life, which placed the patient at risk of increased depression. These factors led to a patient avoiding being labeled with a substance use disorder, which impacted motivation to seek treatment. If a patient continued to experience this internalized stigma, it could have led the patient to isolation and reduced social support, which affected their mental, social, and physical well-being. An educational program regarding self-stigma for MAT patients was essential. It was a needed step toward getting the patient on the right track to improved self-sufficiency, increased ability to obtain life goals, and improved overall quality of life.

The resources needed to provide this educational program began with a collaboration with the Project Chair. As the project progressed, collaboration with a Practice Partner was necessary. An educational project was developed using appropriate educational materials and resources to further the project. Once the educational program was completed, it needed to be sent via text and uploaded to the Project Site website by the Practice Partner. Links to the pre- and post-survey were embedded in the video.

Qualtrics, a web-based survey platform, collected the pre- and post-survey results. The Project Leader and a Project Volunteer evaluated the results.

Output

Education regarding self-stigma was the output in the logic model for this project, along with a pre- and post-modified ISMI-9 survey. The education for this program focused on five topics: "social withdrawal, perceived discrimination, alienation, stereotype endorsement, and stigma resistance (Boyd et al., 2014, p. 1)." The education was presented through a Canva presentation sent via text and uploaded to the Project Site website. The modified ISMI-9 survey was embedded in the video presentation and made available through a web link on the Project Site website. Qualtrics collected results from the surveys.

The project site patients in North and South Carolina were the population focus of this project. The project site created educational information videos each week and placed them on their website. These educational programs were sent out on Monday mornings and placed on the website for future viewing. This 60-minute program on self-stigma was approved to be integrated into this existing educational text, along with the modified-ISMI-9 pre- and post-survey links embedded in the video.

Implementation

As part of the Implementation process, the Project Partner and Project Leader met to determine common risks that might occur during the project's implementation. The Project Leader and the Project Partner used a risk management approach to avoid foreseeable issues.

Threats and Barriers

The seven most common project risks were "stretched resources, operational mishaps, low performance, lack of clarity, scope creep, high costs, and time crunch (Asana, 2022, p. 1-7)." The Project Partner and the Project Leader used these seven common risk factors to determine risks for this project implementation. The steps involved in the risk management process begin with risk identification, determining the likelihood and impact of the risk, finding solutions before these risks become a problem, and then reviewing the risk assessment weekly for updates (Asana, 2022).

The Project Leader determined operational mishaps presented the most significant threat, which included structural changes to the new website, which could lead to issues with posting the educational video to the company website. The Project Partner called the website creator to discuss. The website administration assured us that the video could be embedded without issues. The Project Leader created a test video to be uploaded using Canva technology to determine if there would be any problem with this implementation. The website creator uploaded this video without any problems; therefore, the Project Leader and the Project Partner determined any issues with this threat could be placed in the low-risk category (Asana, 2022).

The Project Leader and the Project Partner also determined low performance could be a threat. The facility selected for implementation was in the first year of practice, and there was some indication that the projected goal of 100 participants might still need to be met. As time approached for implementation, the medication-assisted therapy clinic steadily grew, and just before implementation, there were 95 patients in the

clinic. The Project Leader and the Project Partner determined while this remained a factor, it could be placed in a low-risk category (Asana, 2022).

Another operational mishap risk determined by the Project Leader and the Project Partner dealt with text messaging. The team found the compilation would have to be completed manually to compile the list. The Project Partner agreed to compile the list. Upon compilation, the Project Partner realized some of the phone numbers for text might no longer be in service; however, upon discussion, the Project Partner and Project Leader determined this could be a minor threat (Asana, 2022).

The Project Leader and the Project Partner determined low performance could be a threat. Both the Project Leader and the Project Partner felt the best way to mitigate this risk was to continue planning the project carefully and thoroughly, as the most likely course of action for this risk was labeled as indeterminate (Asana, 2022).

Unanticipated Events or Successes

The Project Partner and Project Leader met regularly with a clear set of goals to prevent "scope creep, time crunch, and lack of clarity (Asana, 2022. P. 1-7)." The Project Partner and Project Leader avoided stretching resources by clearly defining goals, so the project activity did not affect the office's day-to-day operation.

Two unanticipated events occurred during project implementation. The first occurred when testing the text links to phone numbers for the Project Partner and the Project Leader. The pre-and post-test surveys could not be hyperlinked through the video when the text was opened. The Project Leader reviewed the text and determined that an invalid link had been sent. This problem was corrected, and the proper link was placed in the text. This replacement worked without issues. The second unanticipated event

occurred with the video on the company website. After placing the video, it worked well; however, the hyperlinks embedded in it did not work correctly. The Project Partner contacted the website administrator. The website administrator determined that the formatting would not allow hyperlinks inside the video to be linked. After troubleshooting, the website administrator determined that adding links below the video would be the best action going forward. This way, the video played normally. The hyperlinks were in view of the video and could be linked during the appropriate timeframe embedded in the video.

The unanticipated success of the project came from the Project Leader discussing the educational video directly with the patients and receiving relevant feedback. This feedback was used to enact change in the information and education provided to patients in their monthly appointments, change how patients will engage with educational resources, and provide necessary information to the center that a new course of action to meet patient needs prompted a move forward toward a new electronic medical record system.

Monitoring of Implementation

The project was implemented on November 29, 2023. To monitor the launch, an outline was created with specific tasks assigned to the Project Leader and the Project Partner. To check that the text was sent appropriately, the Project Leader and Project Partner included their phone numbers to check the text upon launch. The Project Partner was assigned to upload the video to the website, and the Project Leader was assigned to check that the video worked well through the website link. The Project Leader was also assigned to check Qualtrics to ensure the links worked well through the text messaging.

The Project Leader and the Project Partner answered phone calls to resolve any issues from participants.

Project Closure

The project closed on December 5, 2023. According to Lane (2013), there is a temptation at the end of a project to celebrate the conclusion without reflecting on all the strengths and weaknesses during the project implementation. A closure meeting was held on December 12, 2023, to understand what lessons were learned from the project.

During the closure meeting, the Project Partner discussed patient feedback regarding the project with three core issues learned from the project implementation.

The first theme noted was that participants advocated for an educational segment pertinent to educational themes regarding medication-assisted treatment (MAT), including issues such as stigma, advocacy, tapering, and updates on new or ongoing DEA rules regarding telehealth. The Project Partner and Project Leader determined that a new educational segment related to MAT therapy would be included at each monthly patient visit. In addition, a discussion regarding current and ongoing DEA guidelines will be included to give patients a clear understanding of current practice and areas that could be changed.

The second theme related to how patients wanted to engage in educational programs. Feedback from participants indicated they liked the idea of having education directly related to MAT telehealth treatments that included programs on stigma, advocacy, and tapering. However, most participants providing feedback requested future educational programs be reduced to approximately 15-minute segments, as those

providing feedback liked the project education video but stated the video needed to be shorter.

The third theme was related to the current electronic health record. The participants stated they would like a system to proactively alert them to issues such as scheduling, billing, DEA change alerts, communication portals, and information regarding new educational program release alerts. At that time, each system was provided by a different software. This multi-software approach meant that each step in the process had to be manually curated, which made the process cumbersome. Participant feedback on this process necessitated a more inclusive system on the near horizon. The result of this feedback was that the Project Partner and Project Leader began actively setting up meetings with integrated electronic medical record software companies to search for a product that would meet the needs of the patients based on participant feedback.

Interpretation of Data

This project aimed to discover if medication-assisted treatment (MAT) patients' perceptions of self-stigma can be changed by utilizing an educational program. The literature review indicated a solid need to educate patients on self-stigma and how to combat this problem. During the literature review, a tool was discovered that measured the internalized stigma of mental health called the Internalized Stigma of Mental Illness Scale-9 (ISMI-9) (Hammer, 2023). Simple changes were made to the ISMI-9 to change the wording from Mental Illness to Substance Use Disorder to determine the internalized stigma of current patients attending a MAT program at the Project Site. Dr. Hammer granted permission for wording change. In keeping with the Internalized Stigma of Mental Illness Scale research, the educational program was designed to cover the same

educational topics used in the ISMI-9 study including “social withdrawal, perceived discrimination, alienation, stereotype endorsement, and stigma resistance (Boyd et al., 2014, p. 1).” The participants for this project were newly enrolled MAT patients within the past year at the Project Site. A text with the educational program was sent to participants via EZ-text messaging services (EZ Texting, n.d). The pre-and post-test surveys were embedded into the educational program. Patients voluntarily completed the pre-survey ISMI-9 prior to the educational program. Patients voluntarily completed the post-survey upon completion of the educational program. Statistical analysis of the results occurred after the closing of both the pre- and post-survey. Closing occurred seven days after the project was launched.

Qualitative Data

The Project Partner discussed the educational video with patients as he met with them throughout the week of the launch of the educational program. After the project's close, he continued to discuss the educational video with patients throughout the month as it remained online at the Project Site website.

There were several qualitative findings because of this project. Several participants who viewed portions of the video reported to the Project Partner they felt the information was relevant. They were encouraged to be in a program focused on issues they faced being diagnosed with an opioid use disorder (OUD). Two participants appreciated that the program focused on issues they were interested in rather than "preaching Jesus at us."

Three participants informed the Project Partner they felt the information was essential but found the video too long. The Project Partner discussed what participants felt was a good length and determined that 15-minute videos would work best.

A few respondents discussed with the Project Partner that they were interested in the topics. They wanted a monthly topic video visible on the website and a discussion included in their monthly appointments. The Project Partner questioned what type of education the participants were most interested in receiving. The brainstorming of ideas included tapering regimens, addressing other forms of stigma, DEA rule changes, and streamlining scheduling, billing, and communications.

Quantitative Data

The ISMI-9 was a tool that measures the internalized self-stigma of those with an assumed mental health disorder. The modified ISMI-9 questionnaire made the same assumption regarding the internalized stigma of MAT patients regarding self-stigma. The questionnaire consisted of a nine-item, four-point Likert scale self-assessment. These nine items were categorized into five domains: “social withdrawal, perceived discrimination, alienation, stereotype endorsement, and stigma resistance (Boyd et al., 2014, p. 1).” The ISMI-9 was designed to be a unidimensional tool that measures comprehensive internalized stigma. While the tool does cover five topic areas, it is not designed for subscales in those topic areas.

Hammer (2023) used the rating measurement for the ISMI-9 that was used to determine the internalized stigma scale used for the reliability of the Internalized Stigma of Mental Illness-10 (ISMI-10) (Boyd et al., 2014). The four-point rating scale divides scores as follows: "1.00 –2.00 (minimal to no internalized stigma), 2.01–2.50 (mild

internalized stigma), 2.51–3.00 (moderate internalized stigma), and 3.01– 4.00 (severe internalized stigma. Questions two and nine required reverse coding before calculating the final score. The total was then divided by the number of questions answered) (Boyd et al., 2014, p. 19)."

There were 27 participants in the pre-survey. Five surveys were removed from the calculations as those surveys were blank. Scoring was completed using the ISMI-9 criteria (Boyd et al., 2014). In the pre-survey, eight participants scored mild internalized stigma, two participants scored moderate internalized stigma, and 12 participants scored severe internalized stigma. The total average of all participants was a mean score of 2.41, which was interpreted to mean that overall, internalized stigma was moderate.

There were 16 respondents to the post-survey. Two of those surveys were removed from the calculations as those surveys were blank. Scoring was completed using the ISMI-9 criteria (Boyd et al., 2014). In the post-survey, eight participants scored mild internalized stigma, one participant scored moderate internalized stigma, and five scored severe internalized stigmas. The total average of all participants was a mean score of 2.09, which was interpreted to mean that overall, internalized stigma remained moderate. However, as the score was lower, this was interpreted to mean the educational program influenced the lowering of self-stigma.

Process Improvement Data

The Project Partner and Project Leader discussed process improvement and determined the Plan Do Check Act (PDCA), a form of problem-solving that implements change, would work best to improve patient care. This model used communication skills to determine a problem and how the team planned to solve it. After deciding on the plan,

the Do phase included trailing the plan on a small scale to review the trail for issues, allowing time to make changes before implementing system-wide. It could be implemented fully after the process was tweaked and worked well. Ongoing analysis meant that the improvement cycle continued as needed to improve the patient MAT experience at the Project Site (American Society for Quality, 2019).

Conclusion

Outcomes of the Project

The project's first outcome was to create an environment whereby participants were actively engaged in providing feedback to the Project Partner regarding things they would like to have improved. This open dialogue has continued as patients now perceive that the Project Site is interested in knowing what patients would like to have in the form of educational resources. Participants strongly advocated for smaller-length videos with monthly topics to be incorporated into monthly appointments.

In addition, this led to conversations where participants discussed the processes of managing scheduling, billing, and other services. Participants were optimistic that there was a personalized approach to their care. However, they felt there needed to be a more streamlined process, as using different programs for different things was confusing. Specifically, the participants discussed that there were currently four different applications to obtain services. Upon review, the Project Partner and Project Leader researched several software programs for telehealth, billing, scheduling, communications, texting, and electronic medical records. The Project Partner and Project Leader questioned whether these services could be provided in a single software.

Changes Due to The Project

A meeting was scheduled to review integrative software programs using the PDCA format. After this meeting, two systems emerged, which included SimplePractice® and ICANotes®. The Project Partner and Project Leader set up initial training sessions for both programs. Both sessions were approximately 1 hour long and reviewed the program's essential components.

Both programs came with a free trial, were designed for offices of various sizes, used the Project Site computer platforms, and included training/support resources. The Project Partner and the Project Leader discovered the basic cost of ICANotes® was slightly higher than SimplePractice®; however, ICANotes® included all the needed services that the Project Site needed to integrate. In addition, ICANotes® had a 100% rating for security and included access to all necessary screening tools. A free trial was launched for ICANotes® on December 14, 2024. Upon review of the system during the trial, the Project Partner decided to implement ICANotes® into practice on January 15, 2024.

Impact and How Was it Measured

The focus of this project's impact was organizational and individual. The organizational impact was evident in the increase in patients joining the Project Site medication-assisted treatment (MAT) program, which has increased financial resources. This increase was achieved through external impact, including influencing policymakers and corporate decisions. Potential impacts included tracking referrals to the Project Site and direct and indirect policy outcomes. On the individual level, this has impacted

employee satisfaction and patient satisfaction by changing self-stigma into self-advocacy through ongoing communication with patients since the project launch.

Sustainability

A meeting was held at the beginning of the year to determine monthly educational topics. Each month, a training video will be created and placed on the company website for patients to view. These videos are kept to a 15-minute, so patients know how much time is needed to view each video. At each monthly appointment, the topic is mentioned for discussion with each patient, and a determination is made whether the patient requires further information on the monthly topic. If it is determined that more information is needed, this can be added to the patient's individualized care plan.

The implementation of ICANotes® started in mid-January 2024. The program was robust, with a learning curve required for staff and patients. This system was being implemented in stages per PDCA. The first plan was to attend training and determine how each part of the system worked to learn all aspects of the program. After the initial general training, patient demographics were entered into the system. The third step was entering new patients into the system during the initial assessment of a few selected patients. This step allowed the trainer to review and explore what was available in the record so that others could access the program with an in-house trainer to help troubleshoot issues as they arose. Upon completing the learning curve, this system will take less time than the several systems it replaces, so it will be sustainable going forward.

Measurements to be Collected in the Future

The Project Partner and the Project Leader have discussed using communication software in the future to send out satisfaction surveys tailored to the individual areas of

the ICANotes® software so that any issues discovered can be addressed. In addition, a survey regarding educational needs for the upcoming monthly topics will be sent out at the end of the year, requesting information on topics the patients would like to have addressed.

Personal Reflection

At the launch of this project, the DNP project leader's focus was on how the Project Site might conduct education for medication-assisted treatment (MAT) going forward. The DNP project leader strongly desired to educate the patients regarding ways to combat self-stigma in order to prevent relapse, overdose, and hopefully death.

Before personal interest in this topic, the DNP project leader had worked with two other MAT programs and found the educational portions needed improvement. In the first program the DNP project leader worked with, the educational portion felt sanctimonious and did not address concerns related to the diagnosis, such as stigma or tapering. Many of the patients the DNP project leader worked with within that program expressed concern about the education and voiced distaste, particularly regarding the religious element. In the second program, a therapist met with each patient for about 15 minutes at each appointment. The onus for education was on the patient to bring up a topic for discussion. The DNP project leader felt there had to be a better way to address this problem, as patients mentioned stigma and the need to "get clean" often.

During the feedback portion of this project, the DNP project leader was amazed at the type of feedback received. The program's launch made the patients believe that this company cared about them and wanted to hear what the patients had to say. Many of the patients became vocal about what they felt went well with this program and what they

would like to improve. The result was that the project went in a direction the DNP project leader had not anticipated.

The DNP project leader learned the personal assumption was correct in that patients needed a better education. The DNP project leader also learned this was just the tip of the iceberg. There were many other topics the patients addressed, everything from being stigmatized by pharmacy staff to feeling "othered" by their own families. The DNP project leader had not anticipated how eager the patients would be to talk about the many forms of stigma faced.

The DNP project leader did well with time management as the DNP project leader had a fantastic Project Chair and Project Partner. Neither minded meeting with the DNP project leader and providing guidance each step of the way. The DNP project leader's most significant weakness has been the struggle with the implementation of the ICANotes® system, as it is difficult to learn personally.

The DNP project leader's biggest challenge within the project context was putting the educational program together. The Canva technology was new to the DNP project leader, and while it was user-friendly, difficulty putting the pieces together was experienced. It was also complicated to take big topics and pare them down to digestible pieces. There was so much the DNP project leader wanted to share with the patients. Care was taken to ensure patients were overwhelmed with data.

All in all, this project was a huge learning experience. The best tool the DNP project leader found while working on this project was the Plan Do Check Act (PDCA), which allows for complete planning, doing the work, checking the work, and then acting

on the changes needed to go forward. It has made the process of implementing ICANotes® easier.

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Appendix A

Permission to Modify Internalized Stigma of Mental Illness Inventory (ISMI-9) from Dr. Joe Hammer

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Hi Pam, you are free to do so. Good luck.

- Joe

From: Pam Cox <pjohnso3@gardner-webb.edu>
Sent: Monday, July 17, 2023 5:04 PM
To: Hammer, Joseph H. <joe.hammer@uky.edu>; Toland.md@uky.edu <Toland.md@uky.edu>
Subject: ISMI-9

Hi Dr. Hammer and Dr. Toland,

My name is Pam Cox. I am an RN working on my PMDNP degree, which requires a capstone project. My project concerns stigma regarding substance use disorder and I am interested in using the ISMI-9, but with a few simple modifications - replacing "mental illness" with "substance use disorder" and changing the word possible to possibly. Dr. Hammer, I noted on your website that permission is not needed from you to use the ISMI-9; however, I wasn't sure if I would need your permission to make this modification. Dr. Toland, I was not sure if I would need your permission for use of the tool and for the modifications. If I need your permissions for this, I would like to request it.

Sincerely,

Pamela L Cox, BSN, RN

Hunt School of Nursing

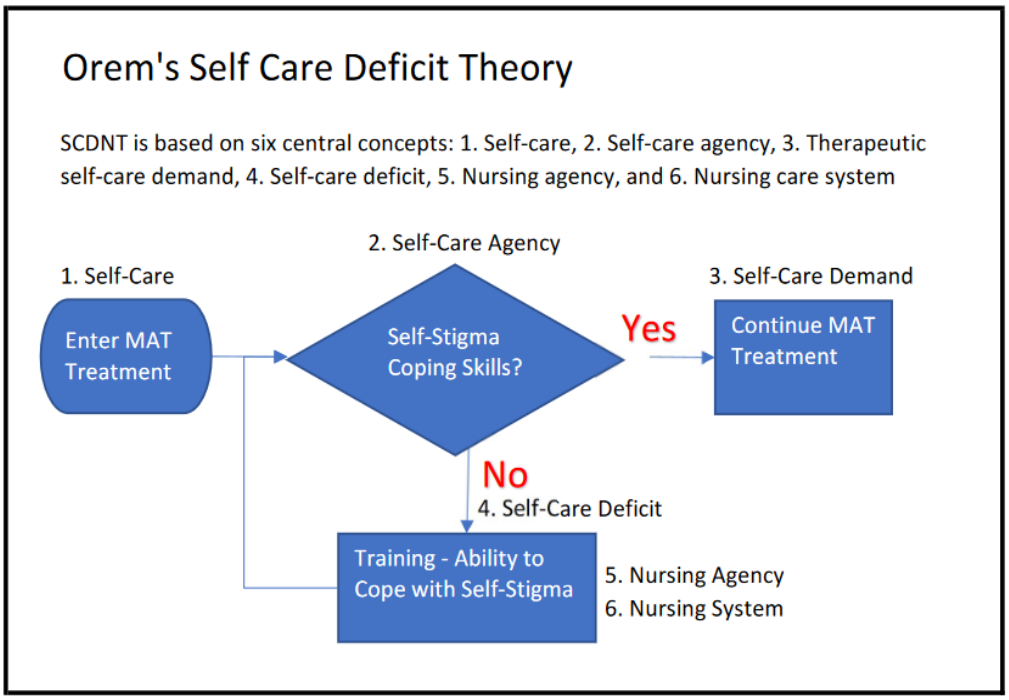
DNP-Psychiatric Mental Health Nurse Practitioner Student

Anticipated Graduation May 2024

Phone: 864-504-9188

Appendix B

Orem's Self-Care Deficit Theory



Source: own authorship (2023), based on Orem's theory (Orem, 1971).

Appendix C

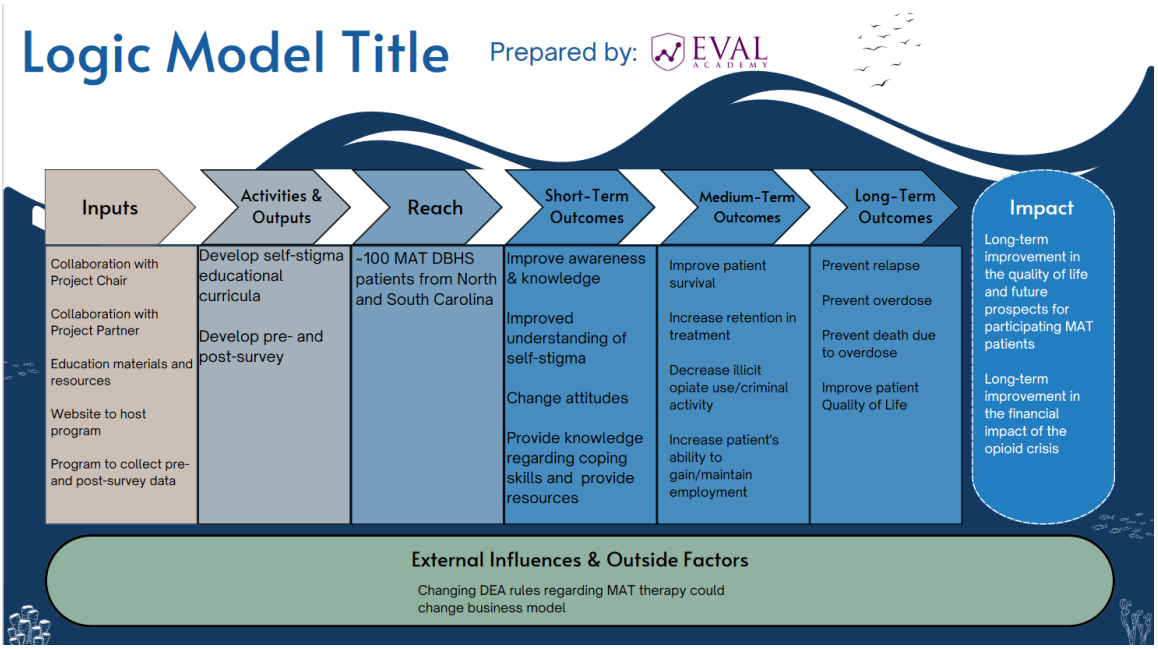
Work Breakdown Structure

Project Name: Combating Self-stigma Among Patients in Medication-assisted Therapy
Project Manager: Pam Cox, RN
Date: 6/20/23

Source: own authorship (2023), based on Work Breakdown Structure tool (CDC, 2006)

Appendix D

Logic Model



Source: own authorship (2023)