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EXAMINING THE EFFECTIVENESS OF PSYCHOSOCIAL INTERVENTIONS FOR OPIOID USE DISORDER: A SYSTEMATIC REVIEW

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A Project

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Social Work

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ABSTRACT

Background: Due to the increased distribution of synthetic opioids, mortality rates, overdose rates, and addiction related to the consumption of illicit fentanyl have drastically increased over the past years. Although medication-assisted treatment (MAT) is the first-line intervention for Opioid Use Disorder (OUD), less is known about the effectiveness of psychosocial interventions for treating this disorder. **Objective:** This study aimed to systematically review the literature on psychosocial interventions for treating OUD. **Methods:** A search was conducted on OneSearch using the keywords “opioid treatment” or “Fentanyl treatment” combined with “psychosocial interventions” or “cognitive behavioral therapy,” or “contingency management” for English articles published between 2013 and 2024. **Results:** Five studies comprising randomized control trials (RCT), observational, and qualitative studies were identified. Based on a preliminary analysis of the studies, it appears that individuals with a history of OUD may benefit from a combination of psychosocial interventions such as cognitive behavioral therapy (CBT) and MAT. **Conclusion:** Treatment options for individuals with OUD should be expanded beyond MAT to include other forms of psychosocial interventions.

ACKNOWLEDGEMENTS

I would like to thank the faculty at California State University, San Bernardino for all of the support I was provided. I specifically want to thank and acknowledge Dr. Caroline Lim for all of the countless hours that were provided in guiding me through this project. Most importantly I want to say thank you to my family and friends who have not only supported me through this journey but have encouraged me to never give up.

DEDICATION

This project is dedicated to Mark Holford.

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CHAPTER ONE:

PROBLEM FORMULATION

Introduction

The increase in accessibility of illicit fentanyl has been associated with an increase in overdose deaths among Americans (Comer & Cahill, 2019). This chapter describes the social problem of illicit fentanyl within the United States. This chapter includes the definition, the prevalence, and the impact of illicit fentanyl.

Fentanyl

Fentanyl is considered a psychoactive drug. It falls under the class of opioids along with other drugs such as morphine, OxyContin, and codeine, which are pain relievers. There are three types of opioids: natural, semi-synthetic, and synthetic. Unlike pain relievers (natural opioids), synthetic opioids have a higher potency. Fentanyl produces the same effects as other opioids, which include feelings of relaxation, euphoria, and drowsiness. Fentanyl is fast-dissolving, thus fast-acting, and highly effective. In fact, it is the most effective opioid, with a potency of 50 to 100 times more than morphine (Kuczynska et al., 2018). It is potentially addictive and thus is a controlled substance in which the manufacturing, possession, use, and prescription are regulated by the Controlled Substance Act (CSA). In 2020, SAMHSA reported about 14.8% of all fentanyl users abuse the substance compared to other opioids including Buprenorphine

(26.5%), Hydromorphone (16.6%), Hydrocodone (12.6%), Oxycodone (14.5%), Codeine (12.2%), Tramadol (9%), and Morphine (8.9%) (Miller, 2023).

Illicit Fentanyl

Illicit fentanyl is illegally manufactured synthetic fentanyl that is available on the drug market. It is often mixed with other drugs, such as cocaine, heroin, or methamphetamines. Illicit fentanyl can be ingested by snorting, smoking, orally by pill, patches, sold alone or in combination with other substances.

Illicit fentanyl has become a concern for the past decade and continues to be an increasing issue within America. Illicitly manufactured fentanyl has become easier to access and affordable for those who use it for long periods of time. The Drug Enforcement Administration (DEA) confiscated nearly 60 million lethal doses of fentanyl within the last 2 years. Moreover, compared to other opioids, such as heroin, users of illicit fentanyl reported heroin to have a better “rush” but also found fentanyl to provide a long-lasting effect of relaxation and sedation, extended time to come down, and was an acceptable substitute for heroin (Suzuki & El-Haddad, 2017). Individuals who use fentanyl consistently are known to become dependent on the drug. Consequently, reports of overuse, intentional misuse, and overdoses of illicit fentanyl have risen significantly (Suzuki & El-Haddad, 2017).

Opioid Use Disorder

Individuals who misuse fentanyl develop a tolerance, which necessitates a higher dose of the substance to achieve the desired effect. Tolerance, in turn,

produces symptoms of withdrawal, including bone pain, shivers, anxiety, sweating, diarrhea, and abdominal cramps (Kuczynska et al., 2018). To mitigate the discomfort of withdrawal, individuals who misuse fentanyl persist in using and, thus, develop a dependence on the drug. Due to dependency, many Americans suffer from opioid use disorder (OUD). OUD is defined as individuals who have a pattern of opioid use that causes significant issues related to health and daily functioning (U.S. Department of Justice Civil Rights Division, 2023).

Prevalence

Over 2 million Americans 12 and older are diagnosed with OUD. Over 20% of all individuals with a substance use disorder also have an opioid addiction (Miller, 2023). In the U.S. every year there is an estimated number of 83,000 opioid related deaths with over 90% involving fentanyl. According to the State of California over 150 people die daily across the U.S. due to synthetic opioids such as fentanyl. Over the past two decades there have been over 564,000 deaths in the U.S. related to the opioid crisis (State of California, 2023). Research has shown that OUD is widespread and is affecting many individuals throughout the U.S.

Impact

Due to the increased distribution of synthetic opioids, mortality rates, overdose rates and addiction related to the consumption of illicit fentanyl have drastically increased over the past years (see Figure 1). In 2016, synthetic opioids, which mainly consisted of illicit fentanyl, were the cause of over 19,000

deaths, which represents a considerable growth from 2010, when around 3,000 deaths were reported (Han et al., 2019; National Institute on Drug Abuse, 2018). In 2018, over 31,000 American deaths related to the use of synthetic opioids, which included illicit fentanyl, were reported (Centers for Disease Control and Prevention, 2023). This number translates to an average of 85 deaths due to the opioid crisis per day (Centers for Disease Control and Prevention, 2023).

Accidental overdose has played a significant role in mortality rates due to individuals not knowing what substances they are ingesting. Many street drugs are being mixed with fentanyl and consumption is unknown until an individual has an adverse reaction. There is a need for expansion of resources for treatment and prevention to decrease harm and mortality from fentanyl use. The impact of illicit fentanyl is likely to be negative for those with addiction to fentanyl, if effectiveness of treatment modalities are not further studied and addressed.

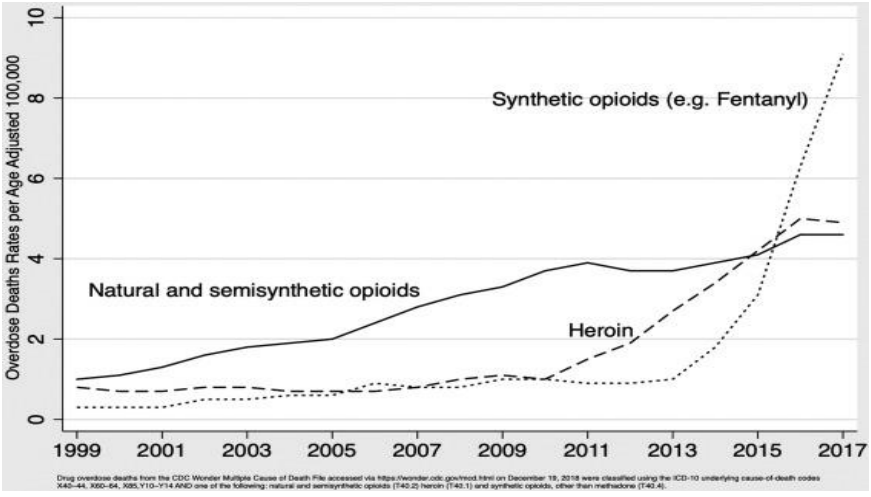

Figure 1. Opioid Overdose Death Rates

Treatment

The standard treatment for OUD is through the use of medications combined with other counseling and therapeutic services to provide a person-centered approach (SAMHSA, 2023). Medication is known to significantly treat OUD while helping individuals achieve recovery and maintain sobriety (SAMHSA, 2023). The treatment of substance use disorder using medication is referred to as medication assisted treatment (MAT). Medications that have been approved by the U.S. Food and Drug Administration (FDA) for OUD treatment include methadone, buprenorphine, and naltrexone (Volkow & Blanco, 2023). Buprenorphine and naloxone are primary forms of medication therapy to assist with fentanyl treatment. Compared to methadone and naltrexone, buprenorphine is more commonly offered in treatment facilities. Microdosing of buprenorphine is another technique when administering and can be successful in quickly introducing an individual to buprenorphine (Antoine et al., 2021).

Although there are several treatment modalities in place for OUD, less is known about the effectiveness psychosocial interventions for fentanyl addiction. Effectiveness of treatment among adults have been studied to show the relapse and recovery rate but it continues to be meaningful to understand psychosocial interventions in detail, to better provide education, awareness and support to individuals during this crisis.

Conclusion

Fentanyl is a highly addictive psychoactive drug associated with significant number of drug overdoses in this nation. This chapter examined the preference of illicit fentanyl compared to other opioids due to its high potency and the effects it produces. Americans have been negatively impacted by the easy accessibility which has resulted in increased mortality rate. Although treatment is accessible to Americans, the consequences of illicit fentanyl use continue to rise. Therefore, it is essential to continue the investigation of treatment options for OUD.

CHAPTER TWO:

LITERATURE REVIEW

Introduction

This chapter reviews past studies on OUD treatment to identify the gaps in research and explain the significance of the current study.

Existing Studies on Medication-Assisted Treatment (MAT)

A large body of literature has investigated MAT, with findings showing regardless of methadone or buprenorphine, overdose deaths related to opioid use have declined over time. Findings have also shown that mortality risk is lower while in treatment than outside of treatment. Overall, MAT appears to be effective in treating OUD.

A study that found MAT to be effective for treating OUD was conducted by Schwartz and colleagues (2013). These researchers used data from the Baltimore City Health Department between the years 1995-2009 to show the number of deaths caused by heroin, a type of opioid. This study aimed to examine the expansion of methadone and buprenorphine treatment and the presence of heroin overdose between these years. Records from methadone treatment centers in Baltimore City were used, along with intoxication death records from the Chief Medical Examiner to compare the effectiveness of treatment. Schwartz and colleagues conducted a longitudinal time series analysis of archival data to retrieve necessary data. Figure 2 shows the decline of heroin overdose deaths due to the increase of methadone and buprenorphine

treatment. It is important to note buprenorphine was not available until 2003. An average of annual overdose deaths decreased by 37% after buprenorphine became available resulting in 262 deaths between 1995 and 2002 and 165 deaths between 2003 and 2009 (Schwartz et al., 2013). The overall findings indicate that access to opioid antagonist treatment of heroin may have contributed to the decrease in heroin overdose deaths.

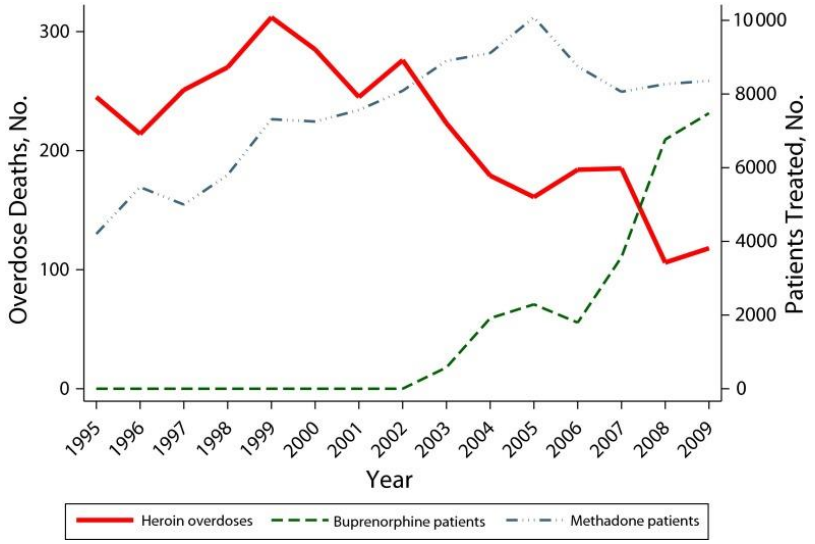

Figure 2. Opioid Treatment and Death Rates

Gibson and colleagues (2008) also found evidence of MAT being effective is reducing mortality rate associated with opioid use disorder. The researchers conducted a study to compare mortality rates between methadone and buprenorphine patients (Gibson et al., 2008). Four hundred and five participants

were recruited from three opioid maintenance treatment clinics in Australia to complete a randomized, double-blind trial of buprenorphine versus methadone treatment for opioid dependence (Gibson et al., 2008). Participants were all diagnosed with opioid dependence in accordance with the DSM-IV criteria and were 18 years and older. In this study, 200 participants were randomly assigned to buprenorphine treatment and 205 participants to methadone treatment for a total of 91 days. Findings from this study showed 30 deaths in the follow-up period between eight to 10 years after the conclusion of treatment: 16 in buprenorphine (53.33%) and 14 in methadone (46.67%). Twenty-seven of these deaths occurred while participants were not participating in opioid maintenance treatment. Only one official death was recorded during the treatment period. Forty percent of the 30 deceased participants died from drug overdoses or related complications. This study's findings indicate that opioid treatment reduces mortality risk regardless of buprenorphine or methadone.

In 2009, Degenhardt and colleagues examined mortality rates among clients participating in opioid pharmacotherapy programs over a 20-year span. The NSW Pharmaceutical Drugs of Addiction System (PHDAS) was used to examine data on all persons entering pharmacotherapy between 1985 and 2006. This information was linked to data from the National Deaths Index to calculate crude mortality rates (CMR) and standardized mortality ratios (SMRs). CMR, which is expressed as the number of deaths per 1,000 population, measures the number of deaths during a given period in a particular population. SMR is

calculated by dividing observed deaths by expected deaths. Ratios higher than 1 indicate that the population experienced a higher number of deaths than expected. The study reported that 42,676 clients entered treatment between 1985 and 2006 with a median episode length of 198 days. During treatment the CMR was 6.0 compared to 11.5 during the follow-up period. The SMR reflected 4.5 during treatment and 8.0 at follow-up. Deaths during treatment revealed 1,223 compared to 2,580 deaths during follow-up. Mortality rates (both CMRs and SMRs) increased over time until 1995–2000 and fell in 2001–2006 due to the induction of MAT (Degenhardt et al., 2009).

Psychosocial Interventions

The research to date has tended to focus on MAT rather than psychosocial interventions for treating OUD. Studies of psychosocial interventions show treatment outcomes may improve when psychosocial interventions are added to MAT.

In a more recent study, Kakko and colleagues (2019) conducted a narrative literature search to include terms related to opioids and cravings. From this search, Kakko and colleagues found a few studies that connected mindfulness with opioid craving. These studies suggest that non-pharmacological interventions may be beneficial to persons with substance use disorders. The findings from these studies show cognitive behavioral therapy (CBT) has been shown to be an effective prevention intervention for relapse (Kakko et. al, 2019), but it is unclear if CBT helps manage cravings. Other psychosocial interventions,

which include mindfulness, have been linked to reduced cravings in substance use disorders. Mindfulness-based relapse prevention (MBRP) is an approach to relapse prevention that includes CBT. Kakko and colleagues found that MBRP has been shown to reduce substance use compared to usual treatments in both outpatient and residential settings. Outside of treatment, MBRP may prepare patients for environmental relapse risks (Kakko et al., 2019). It is unclear if mindfulness can affect the neurobiological changes in addiction, but there is evidence to show mindfulness can influence the hypothalamic-pituitary-adrenal (HPA) axis and lead to structural changes. Further studies need to be conducted to examine how psychosocial interventions can affect the neurobiological factors of cravings and addiction and to identify the most effective treatment for OUD.

Systematic Reviews on Treatment for Opioid Use Disorder

Several systematic reviews on the treatments of OUD have been published. For example, findings from a systematic review of 55 studies published between 2010 and 2014 identified medication and psychosocial interventions to be associated with retention in MAT (Timko et. al, 2019). Three studies found that methadone treatment had a higher retention of 73.9% in MAT at 4 months and 74.0% at 6 months compared to buprenorphine/naloxone of 45.9% at 4 months and 46.0% at 6 months (Timko et. al, 2019). However, patients receiving methadone-only treatment were less likely to be retained at 3 months (67.5%) versus patients receiving methadone and behavioral therapies (81.7%), which is also known as contingency management. Contingency

management is a type of behavioral therapy that reinforces or rewards individuals for evidence of positive behavioral change. The same was observed for patients receiving only naltrexone treatment (16.0%) compared to naltrexone and contingency management, who were also more likely to be retained at 6 months (54.0%). This review shows the benefits of methadone compared to buprenorphine. This review also suggests offering MAT with psychosocial interventions may contribute to higher retention rates.

In 2021, a systematic review was conducted, including 60 studies with 7,000 adult participants who were receiving medications for opioid use disorder. The studies used in this review were published between 1984 and 2019. Eleven of these studies were tested on the effectiveness of contingency management, which is a type of behavioral therapy that provides motivational incentives to treat individuals with OUD to increase abstinence from illicit opioid use. Seven of the studies (64%) showed contingency management as a contributing factor to abstinence from illicit opioids (Bolivar et al., 2021). In this review, methadone was given in nine studies, buprenorphine in one, and naltrexone in one. Based on this review, there is a significant correlation between illicit opioid use and contingency management, shown by Cohen $d = 0.58$ (Bolivar et al., 2021). This review shows patients who were treated with contingency management have a success rate of 71.9%, which is higher than the mean outcome for individuals receiving only medications. This review suggests the need for integration of contingency management in MOUD.

Cioe and colleagues completed a systematic review of patient and provider perspectives on medications for opioid use disorder treatments (2020). One hundred fifty-two articles were reviewed with perspectives on medications, including methadone, buprenorphine, buprenorphine/naloxone, and naltrexone. This review suggests medications are the most effective treatment for OUD. This review also shows the importance of understanding perspectives from both the patients and providers for better retention and recovery. The MOUD treatment should be a mutual decision between the provider and participant to ensure investment in the recovery process.

Gaps in Knowledge

So far, systematic reviews of OUD treatments have focused on medication or medication combined with contingency management. Systematic reviews of other psychosocial interventions, such as cognitive behavioral therapy, have been more limited to the author's knowledge. There is a significant need for further investigation of psychosocial interventions to assist with OUD.

Research Question

Therefore, this study aims to systematically review studies on psychosocial interventions combined with medication interventions for OUD.

Significance of Study

MAT has been successful in the treatment of OUD, however there is limited information on the success of psychosocial interventions in OUD treatment. Two-thirds of individuals are not able to achieve abstinence from

opioids which is why there is a significant need for improvement in OUD treatments (Hser et al., 2015; Zhu et al., 2018).

CHAPTER THREE:

METHODS

Introduction

This chapter outlines how research articles on adults who have participated in opioid treatments and interventions were selected for the inclusion in this systematic review. The articles selected also described findings related to retention and relapse factors. This chapter describes the search engines, key terms, and criteria used to identify articles.

CSUSB OneSearch was utilized to locate and select articles. CSUSB OneSearch has the capability to search other search engines which also provided additional articles used in this review. Several key terms were used to identify articles relevant to this systematic review. Key terms included: “opioid treatment” or “Fentanyl treatment” combined with “psychosocial interventions” or “cognitive behavioral therapy,” or “contingency management.” The type of articles selected were peer reviewed articles. Only articles that were published between 2013 and 2024 were included. Inclusion criteria included only studies that recruited adults and only studies with a combination of medication and psychosocial interventions. Reference lists were also screened to identify additional articles that were not selected from the above method. The search yielded 123 articles.

CHAPTER FOUR:

RESULTS

Introduction

The purpose of the present review is to examine how psychosocial interventions impact both retention in Medication Assisted Treatment (MAT) programs as well as long-term abstinence for individuals diagnosed with Opioid Use Disorder (OUD). This chapter will summarize Randomized Controlled Trials (RCT), pre-experimental studies and a qualitative study.

Synthesis

Using OneSearch database, five studies were identified through the search methods. Treatment outcomes have been widely examined due to the increase of OUD, with research finding MAT as the primary intervention when treating OUD. All five studies provided information regarding medication combined with psychosocial interventions to show OUD treatment outcomes. Of the five studies, two studies indicate no impact on retention or abstinence when psychosocial interventions are added to treatment. The other three studies supported adding psychosocial interventions such as CBT to MAT, to predict higher likelihood of abstinence and retention.

Randomized Control Trial

Two RCTs testing the effectiveness of psychosocial interventions added to MAT were identified. These studies found that augmenting MAT with

psychosocial interventions does not appear to impact abstinence or retention in MAT.

In 2013, Fiellin and colleagues completed a 24-week RCT to evaluate the impact of adding Cognitive Behavioral Therapy (CBT) to physician management in the primary care setting (Fiellin et al., 2013). This study compared buprenorphine treatment only with buprenorphine treatment and CBT. The sample of participants included 141 individuals diagnosed with OUD who have been living with OUD between 7-9 years. The majority of this sample consisted of white males, in their mid-30s, with at least a high school diploma (Fiellin et al., 2013). After participants completed the induction phase, they were randomly assigned to physician management or physician management with CBT. In both groups participants were similar in characteristics to include sex, employment, and reaching abstinence during the induction phase.

Physician management was provided in 15-20 minute sessions weekly for the first two weeks, every two weeks for the following four weeks, and then monthly. Physicians used a structured note to address recent drug use, provide guidance on how to maintain abstinence, and to document support efforts to reduce drug use. CBT was provided by masters and doctoral level clinicians for the first 12 weeks for 50 minutes each session. Clinicians completed adherence ratings for each session. CBT focused on behavior analysis, identifying and coping with cravings, and enhancing drug refusal skills, decision making, and problem solving skills. To determine the effectiveness of adding CBT to

buprenorphine, weekly self-reports of opioid use and urine testing was completed. Based on the findings in this study both groups experienced improvement as evidenced by self-report of opioid use but the improvement did not significantly differ between the two groups. The findings from this study show the effectiveness of physician management using buprenorphine did not differ significantly from that of physician management and CBT.

Ling and colleagues conducted a RCT to compare the effectiveness of CBT, contingency management (CM, CBT and CM, and no behavioral treatment provided with buprenorphine and medical management (MM) for the treatment of opioid dependence (Ling et al., 2013). Contingency management used non-drug reinforces to decrease substance use such as prizes for meeting goals. Participants in this RCT included 202 individuals who met criteria for OUD and received outpatient treatment. This 16-week trial began with a three-day induction phase. After the induction phase participants were randomly assigned behavioral conditions and were comparable in gender. Once assigned, a 16-week behavioral treatment was completed where twice a week data and UA samples were collected, physician meetings occurred, and medication was received. CM was provided at each visit whereas CBT was provided one time weekly. Participants assigned to CM and CM + CBT met with master level clinicians for 45 minutes individual sessions, one time weekly to address topics related to drug use and recovery. Participants assigned to CM and CM + CBT

met with a CM technician at each visit to discuss UA results and receive incentives if earned (Ling et al., 2013).

During MM, limited counseling was provided by a physician. A checklist was used to ensure discussion of UA results, medication dosage, and following dosage schedule was provided. Opioid use was measured by urine testing while retention, withdrawal symptoms, craving, and adverse effects were measured by the Treatment Effectiveness Score (TES). The analysis revealed no group differences were found for opioid use or any secondary outcomes across all four groups. There is no clear evidence that CBT and CM reduce opiate use when added to buprenorphine and medical management in opiates users seeking treatment (Ling et al., 2013).

Pre-experimental

A more recent pre-experimental study was completed in 2024 by Leblanc and colleagues to determine whether the retention rate in a MAT program would be significantly higher after implementation of individual CBT consistently provided for 60 min every other week in addition to the twice weekly group counseling and the prescribed medication (LeBlanc et al., 2024). Forty-nine participants diagnosed with OUD and prescribed anti–opioid addiction medication who participated in an intensive outpatient MAT program were included in this study. This six month quality improvement project gathered existing clinical data to compare MAT reports. Retention rates were measured and findings concluded that before the addition of CBT, the 90-day retention rate was 8% compared to

56% after implementing the addition of consistent individual CBT sessions for 60 min every other week (LeBlanc et al., 2024). This study supports promising results in improving retention rates for MAT when adding CBT and group counseling to treatment.

A pre-experimental study was completed by Harvey and colleagues to examine the relationship between individual counseling, group therapy, and 12-step participation and illicit opioid abstinence at the end of MAT 1 and 3 months after treatment. Five hundred and seventy individuals diagnosed with OUD enrolled in a RCT comparing buprenorphine-naloxone versus extended-release naltrexone. Participants were recruited from inpatient detox facilities. Upon completion of detox treatment participants were enrolled in this outpatient treatment study. Once enrolled, a baseline visit was completed, and participants were randomly assigned to either buprenorphine-naloxone (n=287) or naltrexone (n=283). During treatment, all participants, regardless of the group they were assigned to, were offered weekly individual counseling, group counseling and 12-step groups during the 24 weeks of treatment

During each clinic visit participants provided urine samples and completed assessments relating to the use of psychosocial interventions. Urine samples were used to assess opioid abstinence, ASI-Lite Drug and Alcohol Subscale was used to assess severity of opioid use, and Psychosocial Participation Log (PPL) was used to collect data on psychosocial intervention participation (Harvey et al., 2020). Higher number of hours of individual counseling and 12-step participation

significantly predicted higher likelihood of abstinence at follow-up and participants who received both interventions showed far greater likelihood of abstinence compared to those who received only one. Hours of group therapy was not found to significantly predict illicit opioid abstinence.

Qualitative

A qualitative study conducted by Lent and colleagues aimed to obtain mental health professional perspectives on CBT for opioid use OUD treatment. This observational study included 84 clinician participants who had a minimum of a master's degree, worked in social work, psychology, or medicine, were self-reported to be CBT-oriented, and studied or treated patients with OUD. Through the online survey clinicians rated the efficacy of 13 CBT components for the treatment of OUD using the 5-point Likert scale: agenda setting, homework, cognitive restructuring, rapport, functional analysis, relapse prevention, problem solving, social skills development, coping skills, contingency management, forms and worksheets, motivational interviewing, and psychoeducation (Lent et al., 2021).

Clinicians also rated additional CBT strategies that potentially improve the effectiveness of CBT for OUD. Of 13 possible CBT components, clinicians rated treatment alliance and rapport, the development of coping skills, motivational interviewing and relapse prevention as the most effective CBT components for OUD treatment (Lent et al., 2021). Mindfulness training, peer support services, and medication adherence strategies were ranked as the top three strategies to

be added to CBT components. Findings concluded that multifaceted approaches to OUD treatment to include MAT, CBT, and enhancing content related to building rapport and motivation, could help patients achieve their recovery goals.

Conclusion

Based on the findings of these studies, the combination of medication and CBT may benefit retention in MAT whereas the combination of MAT with counseling and 12-step participant may increase the likelihood of abstinence. CBT appears to impact OUD treatment by addressing coping skills, motivational interviewing, and relapse prevention when added to treatment.

Table 1. Summary of Studies Included in the Systematic Review

Study Design	Psychosocial Intervention	Sample Characteristics and Size[a]	Outcome Measured				Findings
			Opioid Use	Withdrawal	Craving	Retention	
Randomized control trial	CBT + Medication	141					CBT did not impact retention or abstinence
Randomized control trial	CBT + Medication CM + Medication CBT + CM + Medication Medication only	202 participants				+	No differences among behavioral treatments in opioid use

Pre-experimental	Individual counseling Group counseling 12-Step Program	570 participants	+				Greater levels of individual therapy and 12-step participation, and their combination, may be beneficial in OUD treatment
Pre-experimental	CBT + MAT	49 participants				+	CBT improved the 90-day retention rate from 8% to 56%
Qualitative	Mental health professionals rated the 13 components of CBT for the treatment of OUD.	84 participants					Which components of CBT was found reported to be most beneficial?

[a]All participants were diagnosed with an opioid use disorder (OUD).

CHAPTER FIVE:

DISCUSSION

Introduction

This chapter will summarize the study findings, discuss its limitations, and offer recommendations for practice and research.

Aim of the Study

This review identified studies that investigated the effectiveness of psychosocial interventions combined with medications for the treatment of OUD. Findings from the studies suggest that the combination of medication and CBT may benefit retention in MAT, whereas the combination of MAT with counseling and 12-step participation may increase the likelihood of abstinence.

Randomized Control Trial Findings

Findings from the Randomized Control Trials (RCT) are inconsistent with the findings from the pre-experimental and qualitative studies that suggest Cognitive Behavioral Therapy (CBT) may be beneficial when combined with Medication Assisted Treatment (MAT). To the author's knowledge, there is no evidence that suggests CBT alone impacts OUD treatment. The two RCT studies reviewed in this study did not find CBT combined with MAT to be effective in promoting abstinence when treating OUD. Possible reasons include the following. One RCT did not make primary care visits and counseling mandatory, which may have impacted the results. The RCT also found that individual needs may predict the outcome when utilizing counseling interventions. Lastly, the

duration of the CBT treatment was similar to that of real life, but longer periods may have produced better results (Ling et al., 2013). Although these studies did not support the addition of CBT, it is important to acknowledge that these interventions did not bring harm and did not contribute to worse conditions for individuals in treatment.

The pre-experimental and qualitative studies supported the addition of psychosocial interventions with MAT to increase retention and abstinence. Unlike the RCTs, these studies measured several outcomes aside from abstinence. These studies measured retention in treatment, opioid use severity, utilization of psychosocial interventions, and CBT components, which appeared to be positively impacted by the addition of psychosocial interventions. These favorable findings may be attributed to the use of self-reports from participants in treatment, which might have skewed the results positively, and the biased selection of participation so that those who were motivated for change from the beginning of treatment were recruited for study involvement.

Limitations of Findings

RCT studies have the strongest evidence, but only two RCT studies were included in this review. Due to the limited availability of information, only a small number of articles were included, leaving the evidence less robust. This study failed to identify psychosocial interventions specific to fentanyl use which is critical in understanding apart from other opioids. The participants represented in this study were individuals enrolled in only outpatient programs which may not

represent the general population. Outcomes related to psychosocial interventions and improved treatment outcomes were not substantiated in this study which generated inconsistent findings.

Conclusion

The motivation for this study was that these findings would contribute to improving OUD treatment modalities. The implications of this study's findings relate to ways treatment outcomes can be developed and enhanced to better serve individuals with OUD. Based on these findings, substance use counselors may want to add psychosocial interventions to MAT for higher retention and abstinence. It is recommended that further studies be completed on psychosocial interventions, specifically for fentanyl, to evaluate the effectiveness. In conclusion, this study serves as a start for future research on fentanyl use and OUD treatment outcomes when psychosocial interventions are utilized.

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