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The Effects of Opioids on People with Disabilities, Employment and Recommendations for Rehabilitation Professionals

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THE EFFECTS OF OPIOIDS ON PEOPLE WITH DISABILITIES, EMPLOYMENT AND
RECOMMENDATIONS FOR REHABILITATION PROFESSIONALS

By

Samantha McDorman

B.S., Southern Illinois University, 2015

A Research Paper

Submitted in Partial Fulfilment of the Requirements for the
Master of Science

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RESEARCH PAPER APPROVAL

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RECOMMENDATIONS FOR REHABILITATION PROFESSIONALS

By

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A Research Paper

Submitted in Partial Fulfilment of the Requirements

for the Master of Science Degree in the field of Rehabilitation Counseling

Approved by:

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Graduate School

Southern Illinois University Carbondale

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TITLE: THE EFFECTS OF OPIOIDS ON PEOPLE WITH DISABILITIES, EMPLOYMENT AND RECOMMENDATIONS FOR REHABILITATION PROFESSIONALS

MAJOR PROFESSOR: Dr. Koch

The purpose of this paper is to investigate how the opioid epidemic has impacted persons with disabilities and employment. Opioid dependence is a physical reliance on opioids, a substance found in certain prescription medications and illegal drugs like heroin. Opioid use disorders affect many people regardless of their socio-economic status and can also affect employment. People with disabilities are not exempt. According to the Substance Abuse and Mental Health Services Administration (SAMHSA), having a substance use disorder can seriously harm the health and quality of life of individuals with disabilities. Using opioids can interact negatively with prescribed medications, impair cognition and lead to job loss or affect their ability to obtain employment. Providing rehabilitation services to individuals with a substance use disorder can be very taxing on its own. When a person has multiple disabilities this task becomes significantly more challenging.

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CHAPTER 1

INTRODUCTION

The purpose of this paper is to investigate how the opioid epidemic has impacted persons with disabilities and employment and to provide recommendations for rehabilitation professionals. Opioid dependence is a physical reliance on opioids, a substance found in certain prescription medications and illegal drugs like heroin. Opioid use disorders affect many people regardless of their socio-economic status and can also affect employment. People with disabilities are not exempt. According to the Substance Abuse and Mental Health Services Administration (SAMHSA), having a substance use disorder can seriously harm the health and quality of life of individuals with disabilities. Using opioids can interact negatively with prescribed medications, impair cognition and lead to job loss or affect their ability to obtain employment. Providing rehabilitation services to individuals with a substance use disorder can be very taxing on its own. When a person has multiple disabilities this task becomes significantly more challenging.

Overview of the Problem

With opioid use disorders on the rise there is an even greater need to address how this epidemic is being handled, especially considering that, having a substance use disorder will affect one's mind, body and quality of life. Opioids are pain relievers that are used to treat a variety of disabilities from arthritis to chronic pain. An opioid is any agent that binds to opioid receptors found in the central nervous system and gastrointestinal tract. The National Alliance of Advocates for Buprenorphine Treatment (NAABT) explains that "once attached, they send signals to the brain of the "opioid effect" which blocks pain, slows breathing, and has a general calming and anti-depressing effect" (2016).

As stated above, substance abuse can be found in a variety of people, including those with disabilities. When considering this particular population, there are special

circumstances around their disability and drug abuse. There is some debate over the rate of substance abuse among people with disabilities, however the U.S. Department of Human Services asserts that “74.6 million people in the U.S have some kind of disability and that approximately 5 million people have some kind of disability and substance use disorder combined” (U.S. Department of Health and Human Services Office on Disability, 2006). Due to the fact that this group is smaller than the general population, it can be difficult to track the rate of substance abuse within this population.

Likewise, people with disabilities are often prescribed medication more regularly and at a higher rate than those without disabilities. The Sunrise House raises the point that people with disabilities need these medications to function, and “when functioning looks different than that of the able bodied population, it can be hard to determine where the line between simple use and abuse is located” (2016).

While it is difficult to track opioid use disorders in people with disabilities, it is not difficult to prove that having an opioid use disorder can negatively impact employment among those with disabilities. Individuals with disabilities already have lower employment rates than the general population, therefore the addition of having co-occurring disabilities makes it even more difficult for an individual to obtain employment.

Despite the obvious correlation, the impact of opioid addiction on employment can be controversial. In an article about prescription opioid misuse, abuse and treatment, Brady, McCauley and Back (2016), state that 12.5 million Americans reported the abuse of prescription opioids. According to the National Safety Council,

“This prescription painkiller epidemic poses a unique challenge for employers. An employee who tests positive for these legal drugs may present a legitimate prescription, and he or she may or may not have a dependency or an addiction

problem. However, this employee may still be impaired and putting him or herself and the workplace at risk for injuries, incidents, errors, and more.”

This is a recurring theme in the discussion of opioids in the workplace. Even those individuals who are prescribed opioid medication, may still be too impaired to perform basic job functions. The National Safety Council states that “injured workers who are prescribed even one opioid have average total claim costs four times greater than similar claims from workers who were not prescribed opioids” (2016a). Regardless of the controversy, it has been proven that opioids can greatly affect the workplace and need to be better managed.

More often than not an individual who is receiving treatment for opioid use disorders has more than one area of his/her the life they need to work on. During the treatment process, it is common to be assigned a rehabilitation case manager. The rehabilitation case manager would be in charge of looking at the individual holistically and possibly helping the individual find local resources that are needed for vocational fulfilment, independent living and building relationships. SAMHSA (2015), suggests that case managers use these four models to treat people with substance use disorders: broker/generalist, strengths based, assertive community treatment and clinical/rehabilitation (pg. 23). In addition to these models, a rehabilitation case-manager should understand treatment models that are most effective with individuals with co-occurring disorders/dual diagnosis. In addition to the effects of the medication provided to the consumers in addition to the specific counseling techniques that will benefit the client.

Opioid use disorders are on the rise and it affect people all across the nation. People with disabilities can be more susceptible to abusing opioids depending on their disability. Having an addiction problem or even using opioids as they are prescribed can affect one’s ability to obtain and sustain employment. The purpose of this project is to examine the current literature on opioid addiction and the affect it has on employment and people with

disabilities. I will highlight key points of each of these topics and help raise awareness of the rising opioid epidemic. I intend to show what rehabilitation service providers can do to better treat people with disabilities, whether that is someone with one disability or with co-occurring disabilities.

Prevalence.

Opioid use disorder has increased at an alarming rate since 1999. According to the American Society of Addiction Medicine, overdose death rates, sales, and substance use disorder treatment related to prescription pain relievers increased in parallel from 1999-2008. “In 2012, 259 million were written for opioids, which is more than enough to give every American adult their own bottle of pills” (2016). Prescription opioids are currently the second-most commonly abused drug in the nation (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014). The percentage of people 12 years and older who are current heroin users has also increased from previous years (SAMHSA, 2014). Addiction to these opioids is becoming a larger issue and is something that affects millions of individuals in the form of tearing apart families and drug overdoses. In 2010, more than 38,000 people died of drug overdoses, almost half of which were due to opioids. These opioid dominant overdoses now exceed car crashes as the leading cause of unintentional death (National Safety Council 2016b). Frieden (2014), the director of the U.S Centers for Disease Control and Prevention shed some light on the epidemic, stating, “more than twice as many Americans have died from this prescription opioid overdose epidemic than during the Vietnam War” (p.3). As stated previously individuals with disabilities have high rates of co-occurring disabilities. Disabled World Towards Tomorrow is an independent health and disability news source that offers subject areas covering seniors and disability news and assistive device reviews that states; substance abuse prevalence rates approach or exceed 50%

for people who experience spinal cord injuries, traumatic brain injuries, or forms of mental illness (2013).

Background.

Opioids were previously referred as solely synthetic opiates. However, according to The National Alliance of Advocates for Buprenorphine Treatment, the term “opioid” is now used for the entire family of opiates including natural, synthetic, and semi-synthetic (2016). Opium comes from the poppy plant which was first cultivated in Mesopotamia in 3400BC. The Mesopotamians named the poppy plant Hul Gil, or the “joy plant” (Rosenblum, Marsch, Joseph, & Portenov, 2008). The poppy eventually spread and was used to treat pain and many other ailments. Opioids are very powerful. They block receptors in the brain which produces a euphoric sensation. In the 20th century, there were many research advances and major changes in the way opioids were used to treat pain and addiction. The National Institute on Drug Abuse describes opioids as a class of drug that encompasses the illegal drug heroin as well as powerful pain relievers that can be obtained legally through a prescription (2014). Some of these pain relievers included oxycodone (OxyContin), hydrocodone (Vicodin), codeine, morphine, fentanyl, and many others. Opioid pain relievers are generally safe when used for a short amount of time but they are often misused. As stated above, the opioids attach to opioid receptors producing a feeling of euphoria, reducing the perception of pain. They can also produce the feelings of drowsiness, mental confusion, nausea, and constipation (NIDA, 2014). These effects are typically mediated by specific subtypes of opioid receptors.

Opioid Classification.

Opioids are classified as agonist, partial agonist, agonist-antagonist, or antagonist. The NAABT explains that an agonist is a drug that activates certain receptors of the brain. There are three major opioid receptors: Mu, Kappa, and Delta. Mu receptors are mainly found in the

brainstem and the thalamus. They are responsible for analgesia, respiratory depression, euphoria, sedation, and physical dependence. Kappa receptors are found in the limbic system, brain stem, and spinal cord and they are responsible for spinal analgesia, sedation, dyspnea, dysphoria, and respiratory depression. Delta receptors, for the most part, are located in the brain and are responsible for psychomimetic and dysphoric effects (Trescot et al., 2008).

Full agonists activate the opioid receptors in the brain “resulting in the full opioid effect.” Antagonist is a drug that blocks opioids by “attaching to the opioid receptors without activating them, the cause no opioid effect and block full agonist opioids” (2016). Partial agonists activate the opioid receptors but to a much lesser degree than a full agonist. Opioid partial agonists can be used as analgesics but they have a cap to their analgesic effect. Opioid agonists are by far the most common. They create their effect by stimulating the opioids receptors. Differences in activity depends on the stimulation of the various opioid receptors. Using a dosage above a certain level will only yield greater opioid side effects. Opioid agonists-antagonists are those with poor mu opioid receptor efficacy, these can be used as analgesics but have a ceiling to their analgesic effect and potentially have decreased abuse potential. As described above, antagonists block the opioids effects on the body. Opioids are also commonly used to treat opioid overdose.

There are four chemical classes of opioids; phenanthrenes, Benzomorphans, phenylpiperidines, and Diphenylheptanes.

Phenanthrenes are the prototypical opioids. The presence of a 6-hydroxyl may be associated with a higher incidence of nausea and hallucinations. Both morphine and codeine are associated with more nausea than hydromorphone and oxycodone.

Opioids in this group include morphine, codeine, hydrocodone, oxymorphone, buprenorphine, nalbuphrine, and butorphanol. Benzomorphans have only pentazocine

as a member of its class. It is an agonist/antagonist with a high incidence of dysphoria. Phenylpiperidines include dentanyl, alfentanil, sufentanil, and meperidine. Diphenylheptanes include propoxyphene and methadone (Trescot et al., p. 138).

Addictive Potential, Availability and Duration

As previously stated, opioids can be used in a safe manner. They are most dangerous and addictive when they are taken in ways that increase their euphoric effects. The National Institute on Drug Abuse identified these methods as crushing pills and then snorting or injecting the powder, or combining the pills with alcohol or other drugs (2014). Also, some individuals who are prescribed opioid medication do not take the medication as directed. This could mean taking more pills at once, taking them more often than prescribed, or combining them with other medications. The NIDA states that "it is possible for a small number of people to become addicted even when they take them as prescribed, but the extent to which this happens currently is not known" (2014). Opioids can physically change the way the brain works after long term use. The nerve cells get used to having the opioids so when the feeling is removed the individual can have a lot of unpleasant reactions. The brain is no longer able to obtain a feeling of euphoria without using opioids. If a person suddenly stops using it is likely they will experience withdrawals. The National Institute on Drug Abuse for Teachers explains that someone who is addicted to opioids will have strong urges to take drugs, and they no longer feel satisfied by natural rewards in the daily life anymore (2016). Along with cravings, one may need a higher dose to achieve the feeling they seek, this is called a tolerance. Having a tolerance can be extremely dangerous and may lead someone to have an overdose. For instance, if someone with an opioid addiction has not taken a substance in a week or so, their tolerance might have went down but they still take the same large dose they would before and that can have negative consequences. Opioids can be extremely addictive and need to be closely monitored by a doctor.

Opioids are pretty readily available in the community. They can be prescribed by doctors, sold on the street, or given out for free by friends and family. The Centers for Disease Control and Prevention (CDC) reported that “most people who abuse opioids get them for free from a friend of a relative- but those at highest risk of overdose are as likely to get them from a doctor’s prescription (2014). Many people are prescribed prescription opioids for pain, and pain is very subjective. It is difficult to access one’s pain and how much pain someone can tolerate. It has been reported that physicians are over-prescribing these medications. Many young people can find these prescriptions in their medicine cabinet at home, or at a friend’s house making it accessible to people of all ages.

The duration of the opioid effects can vary and depend on a number of factors. Drug potency, how frequently one uses, if it is for medical or recreational use, and the way it is administered all play a part. The method the drug is administered can affect the duration of the effects from the opioids. The NIDA states that “in general the more intense the drug effect, the shorter the duration time” (2014). Recreational use typically yields shorter duration times compared to people who taking the drugs for a medical purpose.

Diagnosing

The *Diagnostic and Statistical Manual of Mental Disorders 5th Edition* (DSM V) by the American Psychiatric Association, is the standard classification system for mental disorders used in the United States. Within this manual there is a large section of substance related and addictive disorders. The substance-related disorders include ten classes of drugs, all of which have a direct activation of the brain’s reward system. These disorders are divided into two groups’ substance use disorders and substance induced disorders (p. 481).

According to the DSM V (2013), the main feature of a substance use disorder is “a cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues using the substance despite significant substance-related problems” (p. 483).

Another characteristic of substance use disorders is a change in the brain circuits that persist beyond detoxification (DSM V, 2013). Individuals diagnosed with substance use disorders will have impaired control which may be exhibited in a variety of ways. The individual may have to take the substance in larger amounts than originally intended, express a desire to cut back but have unsuccessful efforts, spend a large amount of time trying to obtain the substance, or have cravings for that particular substance (DSM V, 2013). In order for one to be diagnosed there may be signs of social impairments, risky use of the substances, or evidence of tolerance and withdrawal.

Substance-induced disorders encompass intoxication, withdrawal, and other substance/medication induced mental disorders (DSM V, 2013). The criteria for substance-induced disorder are categorized by the “development of a reversible substance specific syndrome due to the recent ingestion of a substance, problematic behavioral or psychological changes associated with intoxication, and the symptoms are not attributable to another medical condition” (DSM V, p. 485). Intoxication can be perceived as disruptions of attention, thinking, judgement, unsteady gait, and interpersonal behavior. The DSM V (2013), explains that intoxication symptoms can be difficult depending on if they are short-term or long-term. Along with long-term intoxication one may experience withdrawal. The essential features of withdrawal include behavioral change that has physiological and cognitive components that stem from the reduction or cessation of a prolonged substance. The DSM V (2013), also states that the withdrawal symptoms must cause “significant distress in social, occupations, or other important areas of functioning, and that the symptoms are not due to any other medical disorder” (p. 486).

In order to diagnose an individual with opioid use disorder that person would have to meet the criteria listed in the DSM V. Their opioid use would have to lead to a clinically significant impairment or distress that is shown in at least two of the following ways in a

twelve month period. Opioids are being taken incorrectly; in a larger amount or over a longer period than intended. If there is a strong desire or if one cannot cut back or control their opioid use. A majority of their time is spent seeking out ways to obtain the opioid, use the opioid, or recover from its effects. Having cravings or a strong desire to use opioids. If recurrent opioid use results in the failure to perform major obligations at work school or home. Continued use of opioids despite the social or interpersonal problems caused by their effects. Important activities are given up or reduced because of the opioid use. Recurrent use of opioids in situations that are physically dangerous. Continued opioid use despite of knowing there is a recurrent physical or psychological problem that is likely to have been caused by the substance. Lastly, if there is any tolerance or withdrawal symptoms from the substance (DSM V, p. 575).

Tolerance builds up over time and according to the DSM V (2013), is defined as “a need for markedly increased amounts of opioids to achieve intoxication or desired effect or as a markedly diminished effect with continued use of the same amount of an opioid” (p. 575). Withdrawal of opioid use can be dangerous. Withdrawal occurs when an individual stops or greatly reduces opioid use that had previously been used for weeks or longer or if there is an administration of an opioid antagonist after there has been a period of opioid use (DSM V, p 581). According to Krantz and Mehler (2004), withdrawal symptoms can begin as early as 3 to 6 hours after the last opioid use. Symptoms include gastrointestinal distress, anxiety, irritability, nausea or vomiting, diarrhea, fever, insomnia, dysphoric mood and more (p. 283).

Vulnerability of persons with disabilities.

It is estimated that over 50 million Americans live with some type of disability, including those born with a mental or physical impairments. Some people may use substances to cope with pain or to avoid boredom (“Living with Disability Increases Risk for Substance Abuse,” 2014). Living with a disability has a serious impact on a person's well-

being, but having an addiction disorder can further reduce their quality of life. The substance and prevalence rates for people with disabilities approach or exceed 50% when it comes to certain disabilities. When compared to 10% of the general population, this statistic is shocking (Disabled World Towards Tomorrow, 2013).

Chronic pain is a disability that nearly 100 million Americans suffer from. It is defined by pain that lasts longer than six months and the pain can range from mild to unbearable. The pain can come in episodes or be continuous and can range from being only a little irritating to an individual or it can be totally incapacitating. Chronic pain can originate from a number of things; tendinitis, arthritis, carpal tunnel, any muscle or nerve pain can develop into a chronic condition. The pain may start from an injury or past trauma. As you can imagine this pain can take a physical and mental toll on someone, causing people to seek treatment in a variety of ways. Rosenblum et al (2008), states that “opioids have been regarded for millennia as among the effective drugs for the treatment of pain.” This is a very controversial topic, some believe that opioids help people manage their chronic pain, but others claim that using opioids to treat their pain can cause them to develop an addiction to the drug. This is something that will be discussed further in chapter two.

Having a substance abuse disorder alongside another disability is not uncommon. As stated above, by the Office of Disability (2006), five million people have a co-existing disabilities. It can be very difficult for rehabilitation professionals to treat those with coexisting disabilities. The question of what gets treated first arises, the addiction or the other disability? Another aspect that plays a role in the treatment process is when the addiction disorder came about, was it before the other disability or after? According to Koch & Koch (2014), the substance use disorder may have caused or contributed to the disability by factors such as; increased risk taking or other impulsive behaviors, either failure to develop or loss of skills for self-care, negative physiological and psychological effects of substances and poor

access to health care services (p. 20). In other cases, a substance use disorder can occur after another disability. This can happen directly after the onset of a disability or years later. This can have something to do with the way the individual adjusts to their disability. Some individuals may use substances to cope with the physical and/or emotional pain of the disability and others can develop an addiction to substances out of boredom (p. 283).

Legislation.

There are laws in place to protect persons with addiction disorders in a work setting. These included the Americans with Disabilities Act (ADA) and the Rehabilitation Act. The ADA is one of the most important federal civil rights legislation that affects employers when developing and implementing drug-free workplace policies (SAMHSA, 2015). The ADA does not prohibit employers from having a drug free workplace but it does protect recovering addicts who have already received treatment for their addiction.

The Rehabilitation Act of 1973 guarantees employment rights for people with disabilities through sections 501, 503, and 504. Section 504 provided a three prong definition to disability which did not specifically include people with alcohol and other drug addiction disorders. However, in a later amendment established in 1992 people with alcohol and other drug addictions were added. However, according to Koch (1999), the coverage for addiction disorders are limited in two cases: “(a) people with alcohol and other drug abuse (AODA) disabilities are not covered in cases when current use of AODA interfered with job performance and (B) AODA is not covered in cases where individuals with this disability are considered to be a threat to themselves or others” (pg. 30). In these cases people with AODA disabilities do not qualify.

The ADA and the Rehabilitation Act work together to prohibit discrimination against people with disabilities. It provides protection against state and local governments and their departments and agencies. According the Substance Abuse and Mental Health Services

Administration, the ADA is used to protect people with disabilities from being discriminated against in a wide range of employers. This means that employers can not limit an employee because of a disability in a way that adversely affects them. They may not use standards that have the effect of discriminating on the basis of a disability, deny equal employment or benefits to those with disabilities, and fail to make reasonable accommodations to people with disabilities when it is known.

CHAPTER 2

LITERATURE REVIEW

This chapter will first be discussing the research found on how persons with disabilities are affected by opioids. Then it will focus on the effect opioids have on employment and the employment protections for people with disabilities. The chapter will conclude with research on recommendations on how rehabilitation case managers can provide services that meet the needs for those with an opioid use disorder, disability, and those who are trying to obtain employment.

The Effects of Opioids on People with Disabilities

Whether an individual is taking opioids to cope with a disability or if they have co-occurring disabilities, the use of opioids will affect them in a variety of settings. Individuals who are taking opioids to cope with a disability may or may not be prescribed the medication. Regardless of the status of their prescription they may be misused. The NIDA (2016), defines misuse of prescription drugs as taking medication in a manner or dose other than prescribed; taking someone else's prescription, regardless of the purpose; or taking a medication to obtain the feeling of euphoria. Opioids are commonly prescribed to relieve pain after surgery, to alleviate some of the suffering in people with advanced cancer and to treat chronic pain; these medications are classified as narcotics.

There is controversy on the role of opioids used for medical treatment. According to Burgess, Siddiqui and Burgess (2014), this is due to their potential for misuse, overuse, and addiction since pain is a completely subjective sensation that is tied to emotions and the individual's well-being. The authors explain that the medical decision to administer opioid treatment is an attempt to balance the potential of pain relief, and the reliability of the individual's reporting, against the potential for harm. This process is not as difficult when

dealing with acute traumatic injury or surgical trauma. However, chronic pain conditions are not as obvious (Burgess et al, p. 25).

Blanco et al. (2016), states that pain is a prevalent condition and that “chronic pain affects approximately one-third of the U.S. population and constitutes one of the most common symptoms for which patients seek medical attention.” Chronic pain is associated with intense personal suffering and high rates of disability (Blanco et al., 2016). According to Dowell, Haegerich, and Chou (2016), evidence supports short-term efficacy of opioids in clinical trials lasting primarily 12 weeks or less, but few studies have been conducted to assess the long-term benefits of opioid therapy for chronic pain (p. 1625).

Chronic pain is a disability often tied to opioid use disorders, even though prevalence of opioid abuse among chronic pain patients has yet to be established by nationally representative surveys, chronic pain itself is highly prevalent in society (Opsina and Harstall, 2002). The National Council on Alcoholism and Drug Dependence reported that researchers at Boston University studied 589 people who fit the criteria for drug abuse or illicit drug use, and found 87 percent reported chronic pain. Of the 576 patients who used illicit drugs (marijuana, cocaine and/or heroin), 51 percent reported using drugs to treat pain. The study found 81 percent of the 121 people who said they misused prescription opioid painkillers reported they did so to treat their pain (National Council on Alcoholism and drug dependence, 2016).

The Centers for Disease Control and Prevention (CDC) updated a review on the effectiveness and risks of opioids and what the benefits and harms that are associated with opioid use. The CDC determined guidelines for prescribing opioids for chronic pain. The purpose of these guidelines intended to improve the communication between the clinician and the patient, improve the safety and effectiveness of pain treatment, and reduce the risks and benefits of opioid therapy (Dowell, Haegerich & Chou 2016). Dowell, Haegerich, and Chou

(2016), states that a high percentage of patients discontinued long-term opioid therapy because of lack of efficacy and because of adverse events (p. 1626). The NIDA reports that pain sufferers may not be obtaining significant benefit from the opioids used to treat their condition. Long term treatment with opioids may induce hyperalgesia, which is an increase in pain sensitivity as a result of the opioid medications (2014).

The CDC explains that when determining to initiate long term treatment of opioid therapy the opioids should be combined with nonpharmacological therapy and non-opioid pharmacologic therapy appropriately (Dowell, Haegerich & Chou 2016). It is challenging to determine whether or not long term opioid therapy can be beneficial to individuals that suffer from chronic pain because of the difficulties that long term trials present. According to Burgess et al (2014), long term randomized controlled trials are difficult, if not impossible, due to the inherent actions of the opioid class and the effects when administered. The effects seen with opioid analgesics are often confusing to consumers who may interpret the withdrawal pattern between doses as evidence of efficacy (p. 26). They continue to explain that most chronic pain patients treated with long-term opioids will develop evidence of tolerance and physical dependence, drug seeking behavior, cravings, and even continued use despite harm (p. 26).

Prescribing opioids for treatment of chronic pain has increased as well as the prevalence of opioid use disorders and opioid related mortality (Dunn, Brooner & Clark, 2014). As previously stated, five million people have co-existing disabilities. According to Dunn, Brooner and Clark (2014), data suggests that chronic pain is more prevalent among patients with an opioid use disorder than the general population. They state that individuals that fall into this group may face unique challenges regarding the treatment of their chronic pain. For example, individuals with an opioid use disorder and chronic pain may be more sensitive to pain than those who are nondependent. Dunn et al. (2014), performed a study in

hopes to characterize chronic pain in patients with an opioid use disorder and found that there is a large discrepancy in the percent of individuals who may need treatment for pain and those who are receiving treatment for pain. They suggested that more effort should be made to provide standard pain management techniques to reduce their overall level of pain (p. 1544).

When dealing with co-occurring disorders it is important to know the onset of an opioid use disorder and if it developed before or after the diagnoses of the other disability. According to Griffin et al. (2016), “the presence of chronic pain reported by patients entering prescription opioid use disorder treatment ranged from 42-61% in recent studies” (p. 216). Individuals diagnosed with an opioid use disorder commonly report relief of chronic pain as the reason for their first opioid use (p. 217). Even though several studies have reported no association between baseline pain and opioid use during treatment, Griffin et al. (2016) concluded that individuals who experience flare ups of pain during treatment are prone to relapse to opioid use. They determined that the severity of pain at a particular time predicts the relapse of opioid use (p. 220).

Co-occurring disorders are not uncommon. Griffin et al. (2014) reported that those with substance use disorders are considerably more likely to have another psychiatric disorder than those without a substance use disorder, with “a prevalence rate for a co-occurring mental illness at 45.1% of those with past-year substance use disorder” (p. 157). Saunders et al (2015) went even further to explain that co-occurring psychiatric disorders are highly prevalent among individuals with opioid use disorders as well (p. 722). Saunders et al (2015) states that “37. 9% of treatment seeking patients with co-occurring opioid use and psychiatric disorder have higher rates of continued substance use and overdose, poorer occupational functioning and decreased quality of life” (p. 722).

Along with chronic illness, post-traumatic stress disorder and substance use disorders frequently co-occur. Post-traumatic stress disorder (PTSD), as defined by the DSM V, is a trauma and stressor-related disorder characterized by persistent re-experiencing of a previously traumatic event (DSM V, 2013). Individuals with PTSD put forth their best efforts to avoid thoughts, feelings, and events associated with the trauma. According to Shorter, Hsieh, and Kosten (2015), “substance use disorders are two to three times more likely among individuals with lifetime PTSD” (p. 705). It has been reported that many people with PTSD will use substances such as alcohol or opioids in an attempt to reduce to cope (Shorter et al., 2015). On the other hand, individuals with substance use disorders are also at greater risk of developing PTSD. This is because of increased exposure to traumatic and/or stressful events as a consequence of their lifestyle. These lifestyle factors may include overdoses, deaths of friends, victimization, HIV exposure, sexual assaults and the violence associated with drug use (Shorter et al, 2015).

Opioids effect on employment.

Employment has a large impact on an individual’s quality of life and is a prominent goal in the lives of many. Employment has been shown to improve stability, health, and social well-being (Dunigan et al., 2014). According to Dunigan et al (2014) employment after substance use treatment is an important outcome but is often difficult to accomplish because finding employment is influenced by multiple factors outside of the treatment system and the client (p. 21). Some of these factors may include economic stability at the local and national level, location, and job availability (Dunigan et al, 2014). According to the National Council on Alcoholism and Drug Dependence (NCADD), employers may be hesitant to hire someone with a history of substance use disorder because of the high risk of premature death/fatal accidents, the high rate of injuries and accidents, absenteeism/extra sick leave and the loss of production (NCADD, 2015). Dunigan et al (2014) examined the employment

trajectories of those who are treated for substance use disorders and determined attributes that may be associated with post-treatment employment. These include prior employment experience, prior criminal justice involvement, skills or vocational training, treatment characteristics such as length of stay and or completion of treatment, and demographic characteristics (p. 21). The NCADD explained that employers are concerned about poor decision making, high turnover, and the increased likelihood of having trouble with co-worker/supervisors and theft (2015).

Luckily there is federal legislation in place to help protect these individuals from discrimination. The Americans with Disabilities Act (ADA) provides civil rights and employment protection for persons with disabilities. According to Koch (1999), persons who are protected under the ADA in regard to discrimination in employment are considered qualified individuals with a disability who can perform the essential functions of any employment position which is currently held or desired. Eligibility for individuals with substance use disorders can be difficult to follow. The Society for Human Resource Management explains that:

Illegal drug use is never protected, but recovering addicts are protected under the ADA. Persons addicted to drugs, but who are no longer using drugs illegally and are receiving treatment for drug addiction or who have been rehabilitated successfully, are protected by the ADA from discrimination on the basis of past drug addiction.

(Society of Human Resource Management, 2015)

However, if a drug test shows that the employee is using an illicit substance they will no longer be protected under the ADA. In addition to the individual abstaining from drug use, they must also be either currently participating in a supervised rehabilitation program or have completed a rehabilitation program (Koch, 1999). The ADA does make it illegal for employers to discriminate against recovering alcoholics and drug users who have already

sought treatment for their addiction. According to SAMHSA (2015b), under the terms of the ADA, “employers cannot fire, refuse to hire, or refuse to promote someone simply because they have a history of substance abuse,” or because they are enrolled in a drug or alcohol rehabilitation program.

Title I of the ADA requires an employer to provide reasonable accommodations to qualified individuals with disabilities who are employees or applicants for employment. The Equal Employment Opportunity Commission (EEOC) defines the accommodation as “any change in the work environment or in the way things are customarily done that enables an individual with a disability to enjoy equal employment opportunities” (EEOC, 2002). There are three types of reasonable accommodations. According to the EEOC (2002), they include modifications or adjustments to a job application process that has enabled a qualified applicant with a disability to be considered for the position; modifications or adjustments to the work environment that enable a qualified individual with a disability to perform the essential functions of the position; or modifications or adjustments that enable a covered entity’s employee with a disability to enjoy equal benefits and privileges of employment as they are enjoyed by other employees.

Several modifications have been considered reasonable accommodations they include access to employee assistance programs, inpatient treatment, use of leave and flexible work hours and job restructuring (Koch, 1999). Employers may establish employee assistance programs that can assist in referring individuals with substance use disorder for treatment or continuing care. This along with flexible work hours allows individuals in treatment to maintain their ongoing recovery (Koch, 1999).

Even though there is legislation protecting individuals with disabilities there are still a number of barriers to employment for people with substance use disorders. Dunigan et al (2014) points out that criminal history will effect one’s ability to gain employment, especially

if the charges are drug related. According to Sigurdsson, Ring, O'Reilly and Silverman (2012), barriers include "low levels of education and technical skills, low levels of interpersonal skills and lack of general "hard" and "soft" skills" (p. 580). This article examines the possible predictors of barriers to employment for individuals with substance use disorder. Additional barriers may relate to environmental issues, such as residence in areas with few employment opportunities and poor access to childcare. These limited employment opportunities may require hard skills, such as operating machinery or general skills such as the ability to work on a personal computer (Sigurdsson et al., 2012). In addition to hard skill defects, Sigurdsson et al (2012) highlights that unemployed individuals with substance use disorder lack general soft skills that are not job specific but are important in the job seeking process. These soft skills involve interviewing skills, punctuality, attendance, appropriate dress, and hygiene.

These skills are important for finding and maintaining employment, according to the research showing that individuals with substance abuse disorders lack in these areas. Sigurdsson et al (2012) found that computer knowledge deficits appeared to exist across all difficulty levels. In today's world, computer knowledge is "widely considered to be the most far-reaching generic skill of the modern era" (Felstead, Gallie, Green, & Zhou, 2007). Sigurdsson et al (2012) found that older participants are expected to have greater barriers to employment in terms of computer knowledge and managing interpersonal relationships at work and that individuals in treatment have lower levels of computer knowledge than job seekers in the general population.

Dunigan et al (2014) sought out to determine whether or not substance use treatment is associated with employment outcomes. Employment before or after substance abuse treatment varies by clients' race/ethnicity and gender. It was found that African Americans enter treatment with more problematic work histories than their counterparts and that men

report higher employment rates at treatment entry while women have shown a greater increase in employment after treatment than men but their earnings for work do not increase as much as for men (Dunigan et al, 2014). This study was made up of 8,536 adults ages 21 and up who began an outpatient treatment program in the 2008 calendar year. The focus is on the employment outcomes after a year of treatment. The results found there was a correlation between obtaining employment within that first year following treatment are clients who were engaged during treatment (Dunigan et al., 2014). Although there are a number of barriers for individuals with substance use disorders, working with a professional can help work through some of these obstacles.

Recommendations for rehabilitation professionals

Working with individuals with disabilities and substance use disorders can be challenging on their own, and even more so when they are co-occurring. Ebner and Smedema (2011) state that the relationship between recovery and individuals with a dual diagnosis is complex but the desired outcome remains the same improvement in quality of life (p. 134). Rehabilitation professionals practice in a variety of settings: case manager, substance use counselor, mental health counselor, vocational counselor, etc. Rehabilitation professionals are adaptable but there are a number of principles that are true in almost every application. According to SAMHA (2015a), case management offers the client a single point of contact with the health and social services systems, case management is client-driven and driven by the client need, it promotes advocacy, is flexible, and is culturally sensitive.

When providing services to individuals with substance use disorders, rehabilitation professionals will have to have some basic competencies involving understanding a variety of models and theories of addiction. The ability to describe the practices, policies and outcomes of supported models of treatment, recovery, relapse prevention, and other substance related problems. Recognize the importance of social networks in the treatment process, understand

the variety of insurance options available, and how it will benefit the clients and so on (SAMSHA, 2015). Along with these competencies, professionals should have a good understanding of different treatment medications and the side effects of these medications when working with individuals with substance use disorders. These basic principles are important to understand regardless if one's main focus is not working with those with substance use disorders. With high rates of co-morbidity, a rehabilitation professional will work with an individual with a dual diagnosis and should understand the treatment process in order to help their clients.

A client with dual diagnosis requires treatment for both the mental disorder and the substance use disorder. These consumers have diverse needs that require integrated treatment. McCallum, Mikocka-Walus, Turnbull, and Andrews (2015) report that "clients with dual diagnosis have difficulties navigating their way through services required to address all their needs" (p. 218). This is challenging for many treatment providers as the majority of services use separate disease specific treatment. An integrated treatment approach is recommended when working with individuals with a dual diagnosis. This involves concurrent treatment of both disorders from the same clinician where treatment targets the relationship between the two disorders (McCallum et al, 2015). Some agencies are not able to provide these services. McCallum (2015) suggests some alternatives if a treatment professional cannot provide treatment with an integrated approach. The client should receive intense substance use treatment through inpatient stay, followed by a less intensive treatment of the mental disorder. The rehabilitation professional will also use a number of counseling theories/techniques throughout this process.

Research provides professionals with many techniques. SAMSHA (2015a) suggests four models when working with individuals with substance use disorders: broker/generalist model, strengths based model, assertive community treatment model, and the

clinical/rehabilitation approach. Studies recommend cognitive behavioral therapy, medication assisted treatment, motivational interviewing, and mindfulness training to name a few.

The broker/generalist model helps clients identify their needs and provide them with assistance to access the resources needed. The two main principles of the strengths based perspective are providing clients support for asserting direct control over their search for resources and examining clients own strengths and asserts. This approach helps clients to pull out their own strengths and utilize them, creating a positive sense of self. The program of assertive community treatment model puts an emphasis on maintaining contact with clients in natural settings, focuses on problems of daily living, assertive advocacy, and requires long term commitment. According to SAMHSA (2015), this model was implemented to provide a wide range of services, including skill building, drug treatment and resource acquisition (pg. 25).

The program of assertive community treatment model puts an emphasis on maintaining contact with clients in natural settings, focuses on problems of daily living, assertive advocacy, and requires long term commitment. According to SAMHSA (2015), this model was implemented to provide a wide range of services, including skill building, drug treatment and resource acquisition (pg. 25). As for the clinical/rehabilitation approach, it includes many different techniques, one of which is Client Centered therapy. Client Centered therapy is proven to help clients with substance use disorders by providing psychotherapy, teaching specific skills, and family therapy. Counselors and case managers will need to assess each client to determine which treatment approach will work best. Co-occurring psychiatric disorders are highly prevalent among individuals with opioid use disorders, without targeted treatment for their psychiatric symptoms they will have higher rates of continued substance use and overdose, poorer occupational functioning, and

decreased quality of life (Saunders et al, 2015). Saunders et al (2015) suggests that professionals use medication assisted treatment as well as Cognitive Behavioral Therapy when treating individuals with co-occurring PTSD and opioid use disorders. Medication assisted treatment (MAT) includes methadone, buprenorphine, and naltrexone are FDA-approved medications for treatment of opioid use disorder (Saunders et al, 2015). According to Saunders et al (2015), studies found that clients that use this treatment method have better substance use outcomes, including longer treatment retention and lower relapse rates.

Another form of treatment that rehabilitation professionals can consider is motivational interviewing. Motivational interviewing is a brief intervention designed to augment an individual's motivation to change undesirable behaviors. It is a client-centered directive method for enhancing intrinsic motivations to change by exploring and resolving ambivalence (Chang, Compton, Almeter & Fox, 2015). Chang et al (2015) explains that in order for motivational interviewing to be effective the counselor must respect the clients desire for change and express empathy for a client's experiences. Instead of confronting a conflict, roll with resistance and promote self-efficacy (p. 212). The study showed that after the intervention of motivational interviewing intervention consisting of three fifteen minute sessions for four weeks was executed, participants showed a significant reduction in the risk of opioid misuse at post-test. Along with the decreased risk, anxiety and depression levels also decreased (Chang et al, 2015). Literature has shown that motivational interviewing is a practical, low cost, and easy to use approach for behavioural modification that can help many consumers.

There are a number of recommendations for rehabilitation counselors, however finding the best intervention for each client can be challenging due to the fact that every person is different. One intervention that works well with one person may not with the next. Rehabilitation professionals will need to assess the situation carefully to fully determine what

treatment measure will be the most effective. These professional will have to take a number of aspects into consideration when providing treatment. Knowing how opioids can affect the body and employment outcomes are keep with providing these interventions.

CHAPTER 3

SUMMARY AND CONCLUSION

Summary

The literature regarding the effects that opioid use has on people with disabilities and employment shows how challenging it can be to obtain a high quality of life. With opioid use disorders on the rise, more and more lives are being effected. Individuals with disabilities are being given opioids to medicate and are developing a dependence on the substance that may spiral out of control. In other cases, the opioid use may cause another disability.

The literature shows that opioid use is linked to a number of other disabilities, one being chronic pain. There is not one direct answer that explains why this is but a common assumption is the fact that most people are prescribed a prescription opioid to help manage the pain. Since everyone's perception of pain is different, it is difficult to monitor the dosage correctly. When to prescribe opioid medication is a controversial topic. On one hand, literature has proven that prescription opioid treatment has been highly successful but on the other hand, they have a high potential for misuse, overuse, and addiction.

Studies have shown that treating an individual with co-occurring disabilities raises many challenges. Having co-occurring disabilities is not uncommon and is something that should be taken into consideration during the treatment process. Paying attention to if the opioid use disorder came before or after the onset of the other disability is important. Studies have shown the importance of treating co-occurring disabilities at once is the most effective but not always viable.

Finding employment with an opioid use disorder can be difficult. Not being able to obtain or maintain employment has a large impact on ones quality of life. Literature has shown that employers are less likely to hire individuals with previous drug history, as well as, individuals who are currently using prescription opioids for treatment. The research shows

that this is due to the employers' perception of individuals with a drug history. They assume that there is a high risk of injury, absenteeism, and a loss of production. Even though there are many pieces of legislation that protect individuals in treatment from being discriminated against, the reality is that it happens. Regardless of these biases, studies have shown that individuals with substance use disorders, prior to treatment, have had poorer employment experiences, criminal justice involvement, and not as much vocational training. All of which are topics that should be taken into consideration and developed upon during treatment. Since rehabilitation professionals practice in a variety of settings it is important that they are trained to treat individuals with substance use disorders regardless of their specialization. The professionals in this field need to have knowledge of a variety of theories and models of addiction. As well as understanding that everyone is different and each case no matter the similarities should be treated in its own way. The literature shows that there are a number of different treatment options for individuals with opioid use disorder and co-occurring disabilities, knowing what treatment options will work best for the consumer may be challenging but it is an important task. Knowing and understanding the way opioids will effect an individual's body and the residual effects from drug use is important in rehabilitating the clients.

Conclusions.

Opioid use disorders have been on the rise for a number of years, due to how fast and large this group has becoming it is known as an epidemic. Opioids are effecting people around the world. Individuals with disabilities are, as previously stated, five times more likely to have a substance use disorder than the general population. One of the most common forms of treatment is opioid agonist medication-assisted treatment with methadone or buprenorphine. Jones, Campoplano, Baldwin and McCance-Katz (2015) claim that this is the most effective treatment for opioid use disorder. Medication-assisted treatment has been

shown to increase treatment retention and to reduce opioid use and mortality. The biggest challenge to receiving treatment is actually finding treatment programs close to those affected. There are many barriers to obtaining medication-assisted treatment that include waiting lists for treatment, limited facilities, limited insurance coverage and the requirement that many consumers receive methadone at the facility daily. With these barriers in place it is difficult for consumers to access treatment.

Best treatment options for an opioid use disorder are a combination of medication and some form of psychotherapy. As mentioned above, there are a number of interventions that counselors can implement in the treatment process. Combining these two forms of treatments is effective for this population but it is also important for rehabilitation professional to assess every situation and determine if both forms of treatment or only one would be more beneficial for the consumer.

Along with barriers to obtaining treatment there are aspects that get in the way to finding employment while in recovery. Most medication-assisted treatment programs require an individuals to travel every day to a facility to collect their medication. The travel to and from the facility can take time out of your work day and may cause an employer not to hire that individual. These medications also cause some adverse effects, as started in the previously it may impair one's ability to operate machinery, concentrate, and stay awake on the job. This along with the residual effects of the substance will impair one's ability to gain/hold employment.

Recommendations

There are multiple studies that have been conducted reviewing the effects of short term opioid therapy. Due to the difficulty of holding long-term trials there is not much evidence supporting long-term opioid therapy. Suggesting long-term opioid therapy to consumers can be challenging since the effects are unknown. Rehabilitation professionals

must understand the physiological, psychological, and behavioral realities of substance use to fully be able to provide adequate services for a consumer. There is conflicting research on whether or not opioid treatment is beneficial or detrimental for individuals with disabilities. More research would need to be conducted to fully assess the advantages and disadvantages for opioid treatment in individuals with disabilities.

In order for rehabilitation professionals to help their consumers reach their maximum potential it is important to stay up to date on new treatment models of addiction as well as stay informed on national trends. Overall education plays a huge role in improving the lives of those with opioid use disorders. It is important to educate employers on what limits individuals with opioid use disorder or co-occurring disabilities have, if any. As well as the benefits of hiring individuals with disabilities. The more society understands disabilities the more accepting they will be, which in turn will provide more opportunities for all.

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