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A Guide for Vocational Rehabilitation Counselors on Assisting Clients with Opioid Use Disorders Through Evidence-Based Coordination of Care and Employment Interventions

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Opioid Use Disorder (OUD) and other Substance Use Disorders (SUDs) are a serious public and mental health epidemic that frequently impacts vocational rehabilitation consumers, including consumers who are veterans. In the present article, we review and synthesize the published literature on evidence-based interventions for individuals with OUD, with the primary aim of increasing vocational rehabilitation counselors' understanding of and ability to provide or assist with the provision of evidence-based services for clients with OUD, particularly regarding employment interventions, including pharmacological, psychosocial, employment interventions. Clients with OUD/SUD often have complex and critical needs (housing, food, transportation, childcare, legal issues, etc.) that may pose barriers to both treatment engagement and sustained recovery, including employment. In order to promote sustained positive outcomes with clients with OUD, vocational rehabilitation counselors should address with comprehensive evidence-based coordination of care and employment strategies that identify jobs/career options with positive environmental support and vocational growth opportunities.

Keywords: opioid use disorder; substance use disorder; vocational rehabilitation; recovery

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A distinguishing feature of rehabilitation counseling is an emphasis on the biological, psychological, and social needs of clients known as the biopsychosocial model (Miller Smedema et al., 2016). This emphasis should encourage vocational rehabilitation (VR) counselors to have an in-depth understanding of their clients' holistic needs so that care can be coordinated effectively in the context of an interdisciplinary team that addresses the totality of the clients' needs, including those both directly and indirectly related to employment. Although VR counselors primarily focus on employment intervention strategies, they must understand the nature and general effectiveness of other interventions to effectively carry out coordinated interventions that promote the acquisition and long-term maintenance of employment. In the course of their work, VR counselors may frequently work with clients who have substance use disorders (SUD), including opioid use disorder (OUD). According to the US

National Survey on Drug Use and Health report, more than 2 million adults in the United States have OUD, and nearly 90,000 adults die due to an opioid overdose every year (Saini et al., 2022, p. 284). Due to the magnitude of deaths associated with opioids, most of the research in this literature review focuses on OUD while also integrating research that addresses SUDs in general.

VR counselors are in a unique position to address the drug overdose crisis with evidence-based coordination of services and employment interventions. Therefore, VR counselors need to understand the barriers that are impeding clients from accessing and maintaining recovery and the treatment and employment strategies that are evidence-based. This broad understanding will assist VR counselors to understand and coordinate effective care while they are assisting clients in gaining and maintaining employment.

A cultural crisis such as the opioid epidemic demands that all health care professionals seek and gain knowledge as to how to best address the issues surrounding the crisis. Though each profession has different strategies for addressing the crisis, research suggests that a more comprehensive knowledge base concerning the opioid crisis will empower each provider to address the issue more effectively. The purpose of this article is to provide evidence-based knowledge about OUD and their treatment to VR counselors. Keywords utilized in the literature search for this article include: opioid use disorder, substance use disorder, barriers to treatment, signs and symptoms, evidence-based pharmacological, psychosocial, and employment interventions, addiction, and employment. The article begins with providing general information concerning OUD such as common barriers to treatment, availability of treatment, effective treatment strategies and ends with researched based employment intervention strategies. The structure is designed to provide a comprehensive understanding of OUD that empowers VR counselors to facilitate meaningful and effective conversations, coordinate care with other health care professionals, and implement successful employment interventions strategies on behalf of their clients with OUD/SUD.

Understanding and Addressing Barriers

VR counselors need to understand barriers to treatment for OUD that might be inhibiting their clients from addressing their addiction. Some clients enter VR services having already diagnosed with OUD while others have yet to be diagnosed at the time they begin VR services. Signs and symptoms of undiagnosed or relapsed OUD/SUD may surface in the counseling process, and so VR counselors need to possess a broad understanding in order to recognize the disorder, understand the barriers to treatment, and encourage evidence-based treatment options for clients as they are pursuing employment.

VR counselors will inevitably encounter the issue of opioid use disorder s with a percentage of their clients and need to be equipped to address these barriers to treatment as they encourage clients to seek treatment for their opioid and/or other substance use disorders. Clients at risk for OUD include those who are seeking legitimate pain treatment due to chronic pain, those who are prescribed opioids for the treatment of acute pain, and those who use opioids recreationally to alter feelings and provide relief from negative emotional states (Pergolizzi et al., 2020). Adolescents are also a vulnerable population, as 33 percent of youth that are prescribed opioids will go on to develop OUD, and 70 to 80 percent of adolescents with OUD were previously prescribed opioids (Wilson et al., 2020). Risk by gender varies across the lifespan; overall, males display higher rates of OUD diagnosis than females, but adolescent females display a higher rate of OUD than adolescent males (American Psychiatric Association [APA], 2013). Another subpopulation that is vulnerable to this disorder is medical professionals with increased access to opioids due to their profession or workplace (APA, 2013). An understanding of these demographic risk factors will assist VR counselors in recognizing the signs and symptoms and identifying high risk populations. Although VR counselors are not tasked with direct treatment of OUD, they are in a prime position to notice potential warning signs of new or relapsed OUD and can direct clients to appropriate assessment and treatment.

There has been a great deal of focus and funding to address OUD on a state and federal level to provide access to treatment; however, most individuals with OUD do not pursue treatment even when it

is readily available (Manhapra et al., 2019). In a survey of 208,793 people with OUD, only 10.5% of people believed they need treatment and the two most often cited barriers to treatment were affordability and availability (Saini et al., 2022). The availability of medical assistive treatment is a significant barrier as individuals do not have access in many communities. The availability of medical assistive treatment (MAT) for OUD has been an issue as more than 60% of rural areas do not have these services (Filteau et al., 2021). These treatments are crucial as they provide medications to assist clients in the detoxification process and provide non-addictive pain management medications.

The lack of training of medical professionals to address OUD is also a significant barrier. Researchers note that although the Drug Enforcement Agency (DEA) offered free eight-hour training for physicians for OUD treatment that less than 4% participated (Pergolizzi et al., 2020). They believe that this statistic suggests a hesitancy on the part of medical professionals to treat OUD (Pergolizzi et al., 2020). Lastly, a major barrier to treatment is the fear of withdrawal. Although people begin misusing opioids to relieve pain and experience euphoria, they often continue using so that they do not have to experience withdrawal symptoms (Pergolizzi et al., 2020). Stigma surrounding both OUD itself and OUD treatment may also create significant barriers to help-seeking among many patients (Chou et al., 2022), so it is important that VR counselors approach OUD as a medical problem and not a lack of character or willpower.

It is also important to consider gender differences when considering treatment barriers. Although more men have been traditionally diagnosed with OUD, drug-related deaths among women have been increasing at a more rapid pace than among men (Parlier-Ahmad et al., 2021, p. 142). In studies of women with OUD, the most often cited barriers to treatment were "housing, social support, and childcare" (Parlier-Ahmad et al., 2021, p. 143).

An awareness of the availability of MAT options is particularly crucial due to the lack of this resource in many communities. There are telehealth intervention programs such as The Pain Telehealth Pilot Program that have been effective in assisting clients in communities with limited access to MAT (Glynn et al., 2021). Although VR counselors do not diagnose and medically treat OUD, they should be knowledgeable of treatment options to direct clients to these resources as the need arises.

Understanding and Coordinating Effective Treatment Strategies

Although VR counselors do not prescribe medication or provide designated psychotherapeutic treatment for OUD while providing vocational services, they must understand these interventions to help provide direction as part of an interdisciplinary team of providers. The use of medication-assisted treatment (MAT), such as buprenorphine and methadone has been shown to decrease hospitalizations and deaths associated with OUD (Heikkinen et al., 2022). Treatment can be provided via telemedicine or in-person care; MAT programs utilizing telehealth during the COVID-19 pandemic displayed high levels of engagement and provider satisfaction (Riedel et al., 2021). Some controversy exists with these interventions, as people suggest that clients are merely exchanging substances (Chou et al., 2022; Kilgus et al., 2016). However, patients who stay in treatment using methadone for at least four years have a ninety-four percent success rate of not engaging in crimes associated with purchasing illegal substances (Kilgus et al., 2016). Likewise, suboxone (i.e., buprenorphine and naloxone) is a form of MAT that has been shown to significantly reduce opioid-related overdoses and deaths among patients with OUD (Sun et al., 2022) and reduce hospitalizations and increase abstinence and overall health (Sittambalam et al., 2014).

In addition, there are also pharmacological treatments, such as lofexidine or tizanidine, that are used to reduce withdrawal symptoms in early recovery (Pergolizzi et al., 2020). In some instances, antagonist drugs are prescribed which remove the feeling of being high when taking opioids. Research suggests that this intervention is only effective for "detoxified methadone patients who have made a substantial recovery, professional people, and addicts who are court referred" (Kilgus et al., 2016, p. 272) and thus may not be appropriate for all clients with OUD.

Most programs combine these pharmacological interventions with psychosocial treatment (individual and group therapy) strategies though there is little research supporting the efficacy of these combined interventions (Kilgus et al., 2016). An evidence-based approach that utilizes mindfulness strategies, motivational interviewing (MI) and cognitive behavioral therapy (CBT) in a 10–12-week group setting have been recently developed to address OUD (Mumba et al., 2020). One of the motivations for the development of this approach is the lack of standardized strategies to treat OUD effectively with behavioral interventions (Mumba et al., 2020). The researchers note that MI, CBT, and mindfulness strategies have been utilized to effectively treat OUD and chronic pain as well as many of the comorbid disorders often associated with OUD such as depression and anxiety (Mumba et, al., 2020).

Clients might be apprehensive about pursuing pharmacological treatments due to stigma associated with MAT for OUD (Chou et al., 2022), and VR counselors are in a unique position to encourage clients concerning the availability and effectiveness of these treatments while directing them to the necessary medical providers. Often clients in treatment will independently begin to neglect taking their medication, and VR counselors who understand these treatments can encourage clients to adhere to effective medication treatments and direct them to telehealth service providers if these resources are not in their communities. VR counselors should also be aware of the network of providers in their communities that assist individuals with effective psychosocial and pharmacological treatment options in order to provide informed and appropriate referrals,

Understanding and Applying Evidence-Based Employment Interventions

According to the US Department of Labor (n.d.), VR counselors serve in multiple agencies (state, federal, non-profit, and for-profit) with a variety of programs and expectations. Barriers within their agencies might somewhat inhibit them from applying best practices explored in this article. In many situations, the number of clients on their caseload and the number of expected case closures present a challenge. However, there is still an ethical obligation to do the most possible good for each client. The research discussed below concerning the effectiveness of employment intervention strategies for clients with SUD and OUD should encourage VR counselors recognize and promote the high value of their work. It is also essential for VR counselors to understand the objective and subjective needs of their clients with these disorders to develop comprehensive employment strategies that encourage exploring meaningful and nurturing employment options that support their recovery.

High Value of Employment Interventions for Clients with SUDs and OUDs

Often employment intervention is viewed as a sideline or periphery goal in treatment for clients with SUD and OUD; however, researchers have found that employment is often a critical component of sustained recovery in these populations. In a review of 12 studies concerning how employment strategies affect recovery (Walton & Hall, 2016), clients consistently ranked gaining employment second to their recovery from substance use. One of the primary tasks in SUD/OUD treatment is helping clients discover motivation for recovery. Researchers have found that gaining employment represents a primary source of motivation that counselors should consider in their case conceptualizations and treatment plans (Walton & Hall, 2016). Eleven of the twelve studies also demonstrated a positive relationship between participating in employment interventions and positive treatment outcomes for SUD (Walton & Hall, 2016). This positive relationship necessitates a necessary paradigm shift in treatment goals. Traditionally, treatment programs and counselors have suggested that clients should have substantial recovery before pursuing employment. However, the positive relationship between employment interventions and substance use treatment outcomes suggests that recovery benefits employment and employment benefits recovery. Watson and Hall (2016) also found that employment was positively related to increased abstinence from substance use among individuals in recovery from SUD and concluded that employment interventions are often underutilized in the treatment process despite its potential effectiveness (Watson & Hall, 2016).

A recent study of 29,022 veterans with substance use and mental health diagnosis found that employment contributed to a decrease in health care utilization over the course of five years (Abraham et al., 2021). Data indicated that there was a robust association between employment and decreased usage of both of outpatient and inpatient healthcare at both one year and five years post-discharge from the employment services program (Abraham et al., 2021). This indicates a potential reduction in health care expenses for employed clients, but it might also be an indication of the overall health of the employed clients (Abraham et al., 2021).

Furthermore, numerous studies have displayed a positive correlation between employment and overall psychosocial well-being in clients with SUDs, including positive correlations between employment and social supports, life-meaning, and social networking (Harrison et al., 2019). Employment has also been consistently linked to "more frequent treatment completion, decreased relapse rates, decreased re-offending and parole violations, and improved quality of life in people with SUDs" (Magura et al., 2020, p. 2230). A survey of 809 respondents also displayed that there is a greater stigma toward people with SUDs who are unemployed (Röhm et al., 2022). Perhaps most importantly employment has been shown to reduce the mortality rate from drug overdose (Aram et al., 2020). In a six-year longitudinal study concerning 157 overdose deaths of the participants (n=436, 739, 53% female, 47% male), researchers concluded that there was a higher risk of overdose death among adults who are disabled, unemployed, and retired compared to their employed peers (Aram et al., 2020).

The above evidence suggests that practitioners should consider shifting employment interventions from the periphery to a more centralized treatment focus for people with SUDs and OUDs. Thus, VR counselors should be recognized an important part of the treatment team and be involved in interdisciplinary treatment discussions throughout the treatment and recovery processes. As discussed above, the notion that clients must have substantial recovery before employment intervention is enacted must be reconsidered. VR counselors are uniquely qualified to lead this conversation and must be equipped with evidence-based research to support their position. Advocating for this new paradigm (i.e., recovery assists employment and employment assists recovery) is not a supplemental conversation. It is central and crucial, as sustained recovery and the ways in which employment supports that can be a matter of life and death for clients with SUDs/OUDs.

Understanding the Felt Needs of Clients

The subjective needs and perspectives of people with OUD and other SUDs are often neglected in the treatment process in favor of an outside-in approach is often employed where practitioners solely decide what is best for their clients. This approach can interfere with the development and maintenance of rapport and client engagement. Clients are not likely to be motivated to change when their subjective and basic needs are being ignored (Best et al., 2008). Thus, incorporating responsiveness to client needs needs is essential to promoting the intrinsic motivation of the clients. VR counselors must understand that clients with SUDs/OUDs are processing basic survival needs/responsibilities delineated in the research below such as housing, food, transportation, child-care, legal challenges, and coping with additional comorbid or co-occurring disorders and disabilities.

In a recent study exploring the barriers to employment for 2,233 clients with OUD at a large urban treatment conducted between the years 2015 to 2020, researchers found the top three barriers to employment were psychological barriers (specifically anxiety and depression), transportation barriers, and criminal justice system involvement (Ware et al., 2021). Other concerns identified included lack of financial support, possessing a driver's license, and vehicle (Ware et al., 2021). A longitudinal study of interviews with 19 women in recovery from SUDs four times over nine months concluded that the primary barrier is that employment requires substantial and sustained effort to successfully coordinate work and other life demands" (Suiter & Wilfong, 2021). This conclusion is consistent with feedback from data from an analytic study of gender differences in 133 cisgender clients in treatment for OUD (Parlier-Ahmad et al., 2021). Researchers in this study found a need to address childcare, supportive housing, social support, for women in recovery (Parlier-Ahmad et al., 2021). In another study, Dong and colleagues (2018) conducted survey in 2018 with 22 adults on probation with SUDs in

Rhode Island asking them to rank their treatment values (Dong et al., 2018). They found that substance use, employment, housing, and food were ranked as the most top priorities among participants (Dong et al., 2018).

Taken as a whole, these findings suggest that clients with SUDs/OUDs will enter VR services with numerous deeply felt survival needs (e.g., housing, transportation, food, child-care, recovery, legal issue, etc.) in addition to employment concerns. VR counselors must be aware of these needs and provide clients opportunities to express them. If these needs are unaddressed, it can create cognitive and emotional dissonance that will drown out discussion of and engagement in employment opportunities and interventions. Communicating to clients that the rest of their needs, even those the client views as pressing or critical, will be addressed later may impede the counseling process, as clients are often highly concerned about how they can eat, where they will sleep, and how they will get to their destination and may be unable or unwilling to engage with other interventions if those needs are not met (Best et al., 2008). The abovementioned research concerning the complex survival needs of clients with OUD/SUD suggests that VR case conceptualization and coordination of care for clients with OUD/SUDs must be comprehensive to establish the necessary working alliance and baseline level of client safety and security in order to lay the groundwork for successful employment interventions.

Comprehensive Employment Intervention Strategies

Researchers in several studies have reported effective employment intervention strategies for clients with SUDs/OUDs (e.g., Abraham et al., 2021; Harrison et al., 2019). It is important to acknowledge that not all VR counselors have the liberty to apply these evidence-based strategies in their entirety due to their present program restrictions and resources. However, all VR counselors can creatively adopt and apply evidence-based concepts and practices in their present settings. It is also important for state and federal agencies to consider adopting these evidence-based programs for this population. Considering the high morbidity and mortality associated with OUD, this shift should be a priority.

The comprehensive employment program that presently displays the most evidence-based support is Individual Placement and Support (IPS) for supporting clients with SUDs/OUDs (Swanson & Becker, 2008). The IPS program is comprehensive by design. It has a robust emphasis on interdisciplinary team collaboration to address the felt needs of clients (medical, housing, transportation, therapy, etc.) The IPS specialist is tasked with meeting with medical professionals, case managers, therapists, employers, housing specialists, etc. at least once a week (Swanson & Becker, 2008). IPS specialists provide ongoing support that allows the clients to stay in the program as long as they desire, including transitioning from one job to the next reason, with the average client staying in the program for a year (Swanson and Becker, 2008).

Harrison and colleagues (2019) conducted a systematic review of studies published from 2000-2019 on the efficacy of IPS for clients with SUD or comorbid SUD. Five studies met the criteria as randomized controlled trials (four of IPS, one of a supported employment program that was an IPS precursor), with a combined sample size of 1,318 participants, 658 of whom were in the treatment (i.e., IPS) conditions (Harrison et al., 2019). Participants in the treatment conditions had better outcomes than their counterparts in the control conditions in terms of competitive employment, hours and days worked, and wages. Hellström and colleagues (2021) conducted another systematic review on the effectiveness of IPS to service as usual vocational rehabilitation programs on employment outcomes in clients with various disorders including SUDs/OUDs; thirteen randomized controlled trials met the inclusion criteria. Participants with SUDs in the IPS conditions had significantly better outcomes in terms of competitive employment, hours and weeks worked, time to employment, and long-term maintenance of employment than did their counterparts in the SUD conditions (Hellström et al., 2021).

In addition to IPS, there are other programs have been found to have some promising outcomes for clients with SUD/OUD, including Contingency Management and Therapeutic Workplace interventions. Both of these approaches utilize behavioral incentives and have some empirical support for their efficacy. For example, researchers conducted a randomized controlled study comparing a control group of

individuals with SUDs with a treatment group who were receiving therapeutic workshop intervention strategies (Holtyn et al., 2021). Participants in the treatment group were incentivized to maintain abstinence from substances by being hired and paid for active participation and continued abstinence during the job training process. Their pay rose and fell based on the results of their drug tests, and they receive stipends for attending job-related training. Fifty-nine percent of participants gained employment during the intervention while lacking a true comparison with the control group. A limitation of the study was that data were gathered from the paystubs of those in the treatment group but the control group was not obligated to turn in paystubs, thus limiting the researchers' ability to compare outcomes equally across both groups (Holtyn et al., 2021). Despite the lack of comparison with a control group, the results do provide some support for the potential effectiveness of combined Therapeutic Work and Contingency Management (CM) programs for promoting abstinence and employment in clients with SUDs.

Contingency Management has also been utilized as an employment intervention for clients with SUDs. This strategy incentivizes participants by "making access to work, and thereby wages, contingent on verified drug abstinence" (Cosottile & DeFulio., 2020, p. 114). It also provides "incentives such as prizes, vouchers, or money contingent of verification of drug abstinence via drug toxicology screening" (Cosottile & DeFulio, 2020, p. 111). The researchers reported that the participating veterans (N=2060) "tested negative for 91.9% of 27,850 urine samples and attended 55.5% of CM sessions" (Cosottile & DeFulio, 2020, p. 114). There was no control group comparison in this study, so it is difficult to interpret the significance of the results or to what degree outcomes can be directly attributed to CM. However, it seems plausible that these incentives create motivation for drug abstinence and assist in the employment-gaining process. Again, more research should be conducted on the effectiveness of these behavioral strategies, utilizing randomized control trials.

As stated previously, VR counselors cannot autocratically adopt an evidence-based employment strategy not supported by their agency, and incentive-based programs would have to be adopted and supported by the agency in order to be implemented with fidelity. VR counselors should advocate for the implementation of these evidence-based programs within their agencies. Some of the above strategies and concepts, however, could be creatively applied in any program. All VR agencies encourage collaboration with other providers to meet clients' holistic needs. The question is, how many counselors are committed to this process? Collaboration can be based on meeting the minimal standards of a program (e.g., collecting medical information, making and following up with referrals to other services, and reporting the results to the clients), or collaboration with other providers can be pursued throughout the clients' time in the program by assisting them in addressing their complex and deeply felt medical and psychosocial needs. There are certainly limits to VR counselors' capacity due to high caseloads and limited resources, although encouragement can be found in that comprehensive and collaborative coordination of care might increase the effectiveness of employment interventions while potentially reducing OUD/SUD mortality (i.e., saving lives that would have been lost to drug overdose).

Providing Meaningful and Nurturing Job Opportunities

One of the areas in VR practice that should be further developed is strategic job placement that considers the needs of clients with SUDs/OUDs. In doing this, VR counselors can assist clients in gaining employment that provides meaningful opportunities as well as safe/nurturing work environments. Many clients that enter VR services will have other psychological disorders along with SUDs/OUDs. Job placement for these clients is crucial, given their presenting challenges. Hansen and Bejerge (2017) conducted a meta-analysis of 12 peer-reviewed studies concerning job placement for clients with a psychiatric and SUD dual diagnosis. These studies found that "while employment plays a crucial role in dual recovery, a less meaningful job accompanied by poor motivation, poor coping skills and being met by negative and stigmatizing attitudes might, in fact hinder [dual diagnosed patients']'s recovery" (Hansen & Bejteleerge., 2017, p.1).

Another study explored the effect of job placements of almost 9,000 randomly selected patients at an Iowa drug treatment facility. The researchers concluded that "researchers and providers can help improve client recovery with intervention design, consultation, and policies focused on vocational growth in addition to employment benchmarks of gross income, full-time employment, occupational, primary support, months employed and work" (Sahkler et al., 2019, p. 1). Of note, the authors concluded that simply finding a job and earning income itself did not predict abstinence from substances well (Sahkler et al., 2019). Thus, providing employment opportunities that incorporate vocational growth, as opposed to simple job placement, is essential in promoting overall client recovery and positive treatment outcomes. Locating a job and closing a case without considering issues like environmental safety and vocational growth opportunities might be detrimental to clients with SUDs/OUDs.

Conclusion/Future Considerations

Few professionals would disagree that the drug overdose crisis must be effectively addressed by multiple providers and evidence-based programs and services should expand to make a substantial impact. VR counselors' biopsychosocial training uniquely qualifies them to effectively assist clients with SUDs/OUDs within the context of an interdisciplinary team as clients seek gainful employment. The research concerning the effectiveness of programs such as IPS suggests vocational rehabilitation services should adopt a more comprehensive approach that addresses multiple needs in collaboration with other providers throughout the employment placement process. VR counselors should also keep in mind that not just any job will do, especially with this vulnerable population. Job and career options should be sought that provide vocational growth as well as a safe and nurturing working environments that support recovery. VR counselors undoubtedly face restrictions within their agencies; however, developing creative ways to apply these evidence-based concepts might increase positive employment outcomes in addition to saving lives from a drug overdose.

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