Substance Use Disorder is a Disease, But Not Everyone Who Has a Substance Use Disorder Has the Disease

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Abstract: *Social workers commonly work with individuals, families, groups, and communities to support substance use disorder recovery. Substance use disorder is prevalent in many social work settings, including child welfare, criminal justice, healthcare, policy advocacy, and, of course, clinical social work. Therefore, schools of social work and students must be prepared to treat substance use disorder through multiple avenues using contemporary science to guide practice. This conceptual article supports the work of social work educators and student learning by highlighting the key symptoms of substance use disorder as a brain disease and emphasizing that not everyone who has a substance use disorder also has the brain disease. Additionally, guidance is provided on when social workers should recommend abstinence or harm reduction as the recovery goal in clinical treatment planning. Examples of abstinence and harm reduction clinical treatment plans are provided, and schools of social work can incorporate these examples into their curricula, which is especially important for schools that offer concentrations in substance use and mental health disorder treatment. The article ends with implications for social work and suggestions for future research to advance the evolving science of substance use disorder recovery.*

Keywords: *Addiction, substance use disorder, harm reduction, recovery, clinical social work*

As a starting point, it is important to mention that there is ongoing debate professionally and academically with terminology used in this article. Key terms such as substance use disorder, addiction, and the brain disease model often have different definitions, presumably due to many factors, such as the tools used to make diagnoses, professional training, and discipline-specific ideology surrounding substance use disorder. For instance, when a social worker uses the DSM-5-TR to make a diagnosis and assess severity, they will use the terminology substance use disorder because that is consistent with the language used in the diagnostic manual (American Psychiatric Association [APA], 2022). Conversely, when using the Addiction Severity Index (ASI) to assess the need for treatment, severity, and the impact of drug and alcohol use on major areas of life (e.g., family relationships, employment, health), the terminology used is addiction (Cacciola et al., 2011). The discrepancies in terminology are best noted by the Recovery Research Institute (2024) where they mention 10 different definitions of recovery. These discrepancies, unfortunately, have created barriers to developing interventions and policies that help those with substance use disorder (Kelly & Hoeppner, 2014). For this article, the term substance use disorder is used because the hypothetical clinical treatment plans, diagnoses, and severity of diagnoses are based on the DSM-5-TR (APA, 2022).

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It is also important to emphasize that the author is not suggesting that substance use disorder is not a disease. Substance use disorder is a disease for some. The author is proposing, as suggested in the title, that some people who have substance use disorder based on DSM-5-TR diagnostic criteria (APA, 2022) have symptoms of the brain disease while others do not. As will be demonstrated in this article, patients who have a diagnosed substance use disorder that includes symptoms of the brain disease will, most likely, respond best to abstinence as a treatment goal. Conversely, patients who have a diagnosed substance use disorder that does not include symptoms of the brain disease may achieve recovery through harm reduction, such as reducing their drug use to the point that it no longer has a negative impact on their functioning. With this said, however, disagreements underlying the brain disease model cannot be ignored. Just as there are contradictions in terminology (e.g., recovery), so too do inconsistencies exist in whether or not substance use disorder is a disease. This ongoing discourse has been emphasized through national news outlets (Hoffman, 2024) and academic avenues (Goldberg, 2020). In some instances, substance use disorder is viewed as a disease and others see it as a choice, which Goldberg (2020) describes as the brain disease model versus the choice model. To fully understand substance use disorder, Hoffman (2024) argues that personal choice, environment, social support, and other non-neurological factors must be assessed, and this approach seems to be consistent with the person-in-environment underpinning of social work (Kondrat, 2013).

Over the past few years, there has been more discussion on the potential benefits of using harm reduction approaches to minimize the negative impact of substance use disorder. Harm reduction interventions that are commonly discussed are needle exchange programs, distributing safer smoking supplies, making naloxone available in communities, using fentanyl test strips, and mobile services to treat opioid use disorder with methadone and other medications (Substance Abuse and Mental Health Services Administration [SAMHSA], 2023a). Harm reduction, unfortunately, is rarely discussed in the context of treatment planning, such as clinical social workers collaborating with patients to develop treatment goals based on reducing drug use or using less lethal drugs (Drucker et al., 2016). Historically, harm reduction treatment planning was seen as taboo because the substance use disorder profession was largely guided by programs that dictated abstinence as the treatment goal (Drucker et al., 2016; Gallagher & Bremer, 2018; Gallagher et al., 2019). It is essential that clinical social workers and others who treat substance use disorder are skilled in developing a range of treatment plans. The author claims that it is equally as important that clinical social workers make treatment recommendations, such as abstinence or harm reduction, based on the presence of symptoms that indicate the brain disease. This is especially important as the profession continues to experience a paradigm shift from abstinence as the key outcome to a holistic view of recovery, which includes improved physical and emotional health, having meaningful relationships and social connectedness, and a lifestyle guided by purpose and hope (SAMHSA, 2023b).

Method

Conceptual articles can be guided by many approaches, such as theory synthesis, theory adaptation, typology, and model, as described by Jaakkola (2020). These approaches are often not mutually exclusive and there is no one-size-fits-all methodology to explore

phenomena from a conceptual lens. Reese (2022) emphasizes this point by stating that there is no single way to write a conceptual article. Rather, conceptual articles should center on developing logical insights that can be transferred to practice settings and tested rigorously through future research. Accordingly, an aim of this conceptual article is to present clinical treatment plans that are guided by abstinence and harm reduction approaches to substance use disorder recovery. These treatment plans can be transferred to social work practice settings, particularly to schools of social work that prepare students to deliver best practices in substance use disorder treatment. Suggestions for future research are also discussed to test the conceptual topics that emerged from this article.

This article in best aligned with a typology conceptual model (Jaakkola, 2020) because it has the concrete goal of creating clinical treatment plans to visualize the terms abstinence and harm reduction which, as mentioned previously, can be abstract and inconsistent across disciplines. Typology articles connect constructs to usable products (Cornelissen, 2017; Doty & Glick, 1994; Jaakkola, 2020). In this case, the constructs are symptoms of substance use disorder (APA, 2022) and the products are examples of clinical treatment plans that could be used to guide contemporary substance use disorder treatment. Additionally, typology is recommended when there are inconsistences, or fragmentations, with the conceptualization and operationalization of key terms (Jaakkola, 2020). As shared previously, there is division in how important terminology, such as addiction, recovery, and the brain disease, is understood and used across professions.

To accomplish the goals of this typology conceptual article, the methodological approach was to: (1) review existing literature related to diagnostic symptoms of the brain disease; (2) formulate hypothetical clinical treatment plans that are guided by abstinence and harm reduction recovery; and (3) discuss implications, including recommendations for future research, for social workers and other human service professions that treat substance use disorders. First, the three types of substance use disorder (mild, moderate, and severe) are compared and contrasted to highlight that some patients who have substance use disorder present with symptoms of the brain disease while others do not. Moreover, the author proposes how harm reduction, such as reducing drug use, may support recovery for those who do not have the brain disease, and how abstinence should be recommended for those with symptoms of the brain disease. Second, a hypothetical clinical treatment plan is presented of a patient who has a mild substance use disorder, presents with no symptoms of the brain disease, and chooses to reduce their drug use as part of their recovery. Alternatively, another hypothetical clinical treatment plan is developed for a patient who has a severe substance use disorder, presents with symptoms of the brain disease, and chooses abstinence as their treatment goal. Third, implications for social work and future research agendas are discussed to advance the knowledge base in this area. This includes longitudinal studies to better understand the progressive nature of substance use disorder and qualitative research to give patients a voice related to their paths to recovery, whether that be through a harm reduction or abstinence lens, or perhaps a combination of both.

Hallmark Symptoms of the Brain Disease

There are eleven diagnostic criteria for substance use disorder; a mild disorder includes 2 to 3 criteria, a moderate disorder meets 4 to 5 criteria, and a severe disorder has 6 or more criteria (APA, 2022). Diagnostic criteria are also grouped into four categories: impaired control; social problems; risky use; and drug effects (APA, 2020). The number of criteria met indicate the severity of the substance use disorder (e.g., mild, moderate, or severe) and the author suggests that the categories can help identify whether or not a patient has the brain disease. Substance use disorder is a disease that affects the brain, particularly the functionality of neurotransmitters such as dopamine, serotonin, and gamma-aminobutyric acid (GABA), to name three. The author advocates that not everyone who has a substance use disorder also has the brain disease. This is important to distinguish because the profession has historically defined substance use disorder as a chronic disease where abstinence is the treatment goal. For those who do not have the brain disease, substance use disorder may not be chronic and multiple pathways to recovery are possible, including reduced and controlled drug use. Put another way, the author proposes that some patients with mild substance use disorders may be immune to developing the brain disease. Not everyone who uses drugs, even those who use drugs frequently and in high dosages, will develop a substance use disorder, let alone symptoms of the brain disease. The same phenomenon applies here; having a diagnosed substance use disorder does not automatically equate to having the brain disease. Patients with mild substance use disorders will experience a pattern of problems related to drug use, but they may never develop hallmark symptoms of the brain disease, such as tolerance, withdrawal, loss of control, and craving.

To be more specific, the author claims that the two categories that clearly correspond to the brain disease are impaired control and drug effects (APA, 2020). Findings from modern neuroscience (Erickson, 2018) that examine symptoms of the brain disease align best with these two categories. In these categories, symptoms of tolerance, withdrawal, loss of control, and craving are present. These symptoms are evidence of the brain disease, and when evidence of the disease is present, the author proposes that best practices for clinical social workers is to recommend abstinence as a treatment goal. A practitioner would never see these four symptoms together (tolerance, withdrawal, loss of control, and craving) with a mild substance use disorder because, as shared previously, a mild substance use disorder only has 2 to 3 diagnostic criteria. If a patient does not present with symptoms of tolerance, withdrawal, loss of control, or craving, this may suggest that they do not have the brain disease. In this case, harm reduction through reduced and controlled drug use may be possible. Abstinence is recommended for patients who have severe substance use disorders (6 or more diagnostic criteria) that include symptoms of impaired control (e.g., craving) and drug effects (e.g. withdrawal). Recommendations are less clear for those who have moderate substance use disorders (4 or 5 diagnostic criteria). Substance use disorder, for those who have the brain disease, is progressive, so if untreated, a moderate substance use disorder may progress to a severe substance use disorder. Regardless, when evidence of tolerance, withdrawal, loss of control, and craving are present, abstinence is the best recommendation to support recovery.

Over a decade of research has supported these recommendations. The DSM-5 was released in 2013 and research related to diagnostic criteria for substance use disorder has shown that certain criteria tend to cluster together. These clusters differentiate between those who have a mild, moderate, or severe substance use disorder and can be used to develop treatment goals. For instance, Kopak and colleagues (2014) discussed how some diagnostic criteria, such as having withdrawal symptoms when trying to reduce or stop drug use, inability to reduce or stop drug use despite having a desire to do so, and experiencing cravings to use drugs, are almost always clustered together and associated with severe substance use disorder. Impaired control is a key symptom of the brain disease and diagnostic criteria related to impaired control (e.g., using more of the drug than intended, unsuccessful attempts to control or stop drug use) are often found with those who have severe substance use disorder (APA, 2022). Actually, impaired control seems to be the strongest predictor of having a severe substance use disorder and the brain disease (Belin et al., 2013). Harm reduction in the form of reduced and controlled drug use would, logically, not be recommended for those who have the brain disease and severe substance use disorder. This type of harm reduction requires control and those who have the brain disease and severe a substance use disorder have demonstrated an inability to control their use.

From a practice standpoint, treatment courts, such as drug courts, are a good example of how contemporary substance use disorder science guides programming. Specifically, a goal of drug court is to support patients who are involved in the justice system in achieving abstinence as a treatment goal (All Rise, 2024). Recommending abstinence is best practice for this population because drug courts are designed to serve those who have the brain disease. Specifically, drug courts treat those who

> …have a moderate to severe substance use disorder that includes a substantial inability to reduce or control their substance use, persistent substance cravings, withdrawal symptoms, and/or a pattern of recurrent substance use binge episodes (i.e., use often substantially exceeds the person's intentions or expectations) (All Rise, 2024, p. 7).

As mentioned beforehand, drug courts are designed to serve those who present with hallmark symptoms of the brain disease, such as withdrawal symptoms and craving (All Rise, 2024). Accordingly, and aligned with the position of this article, the best practice would be to recommend and support patients in achieving abstinence as a treatment goal. To further conceptualize this topic and offer social work practice examples, the next section presents hypothetical clinical treatment plans based on harm reduction or abstinence as the treatment goal.

Clinical Treatment Plans: Harm Reduction and Abstinence

Harm Reduction Clinical Treatment Plan

Below is an example of a harm reduction treatment plan for a patient who has a mild stimulant use disorder (APA, 2022) with no evidence of symptoms of the brain disease. As mentioned previously, a patient with no evidence of the brain disease means they do not

meet diagnostic criteria for tolerance, withdrawal, loss of control, and craving. When a patient has a mild substance use disorder with no evidence of the brain disease, harm reduction to include reduced drug use or using less lethal drugs may be recommended. Of course, though, even with a mild substance use disorder and no evidence of the brain disease, if a patient wants abstinence as their treatment goal, as clinical social workers, we support that.

Presenting Problem

Ashley reported that she referred herself to substance use disorder treatment because, for the past year or so, her cocaine use has been having a negative impact on her employment, as evidenced by her missing workdays and being less productive when she is at work. Additionally, she discussed that due to her cocaine use she stopped participating in hobbies and social events that she enjoys, such as going to yard sales with friends, playing bingo, and doing art. Based on the findings from an assessment, Ashley has a mild stimulant use disorder, as indicated by meeting two of the eleven diagnostic criteria. Specifically, using cocaine has had a negative impact on her ability to fulfill the responsibilities of her job and she stopped participating in social activities and hobbies that she previously enjoyed doing. Based on Ashley having a mild stimulant use disorder that includes no symptoms of brain disease, harm reduction and abstinence treatment goals were explored with her. She reported that she did not want to abstain from cocaine; rather, she was motivated to reduce her cocaine use which she felt would improve her quality of life.

Treatment Goals

Ashley wants to reduce her cocaine use from approximately five days a week to two or fewer days a week, and she feels that this reduction in use will improve her work performance and give her an opportunity to attend yard sales and reengage in other activities she enjoys doing. She also wants to improve her overall health and wellbeing by developing an exercise routine and volunteering in her community. To Ashley, exercising and volunteering are two behaviors that will help her reduce her cocaine use and support her recovery.

Treatment Objectives

1) Ashley will learn about the symptoms of substance use disorder, develop cognitive coping skills that align with her treatment goals, and discuss what recovery means to her. This will be measured by her ability to identify the symptoms of substance use disorder that she has experienced, process cognitions that support her treatment goals, and articulate her definition of recovery.
2) Ashley will reduce her cocaine use to two or fewer days a week, and she will plan to use cocaine on Friday and Saturday evenings because this will not

impact her work schedule or performance. This will be measured through her self-report.

3) Ashley will develop and utilize a recovery support system that is supportive of her treatment goals. Her recovery support system will include reengagement in activities that she previously enjoyed doing, such as playing bingo, as well as exploring other activities that she feels will be helpful, such as joining a gym to improve her health and volunteering to support her community. This will be measured by her ability to discuss how utilizing her recovery support system helps her meet her goals of reduced cocaine use and improved functioning in major areas of her life, such as work.

Interventions

The clinical social worker will facilitate individual therapy with Ashley one time per week. Motivational interviewing and cognitive behavioral therapy will be used to support Ashley in identifying her motivations for recovery, developing cognitive and behavioral coping skills that support her recovery, and creating a recovery support system that is conducive to her treatment goal of reduced cocaine use.

Abstinence Clinical Treatment Plan

Below is an example of an abstinence treatment plan for a patient who has a severe opioid use disorder (APA, 2022) with symptoms of the brain disease. As mentioned previously, a patient with the brain disease means they meet diagnostic criteria for tolerance, withdrawal, loss of control, and craving. These diagnostic criteria tend to cluster together, and when a patient has a severe substance use disorder and these clustered symptoms, abstinence should be recommended as a treatment goal.

Presenting Problem

Mike reported that he wants substance use disorder treatment because he is unable to stop using heroin. Mike shared that, for the past 2 to 3 years, he has tried to stop using heroin but has not been able to do so. He has tried to stop *cold turkey* and by using other drugs, such as alcohol and marijuana, but those approaches have not worked for him. Heroin has caused serious problems for Mike, including a recent overdose where he was revived by naloxone and hospitalized for a week. Furthermore, Mike reported that his heroin use has negatively impacted his ability to be a father and husband. Based on the findings from an assessment, Mike has a severe opioid use disorder, as indicated by meeting nine of the eleven diagnostic criteria. Notably, Mike reported symptoms of the brain disease, including tolerance, withdrawal, loss of control, and craving. Based on Mike having a severe opioid use disorder that includes symptoms of the brain disease, abstinence from heroin was recommended as a treatment goal and Mike agreed with this recommendation.

Treatment Goals

Mike wants to abstain from heroin and other drugs, including alcohol and marijuana, to prevent another overdose and possible premature death. He also wants to develop a recovery support system of peers and behaviors that will help him sustain his recovery and improve his relationship with his children and wife.

Treatment Objectives

1) Mike will learn about the brain disease and develop cognitive and behavioral skills to prevent relapse and cope with symptoms of his disease, such as craving, in a manner that supports his treatment goals. This will be measured by his ability to identify the symptoms of the brain disease that he can relate to and practice healthy coping skills to sustain his recovery.
2) Mike will abstain from heroin and other drugs to improve his health, eliminate his risk of overdose and death, and improve his family relationships. This will be measured through his self-report.
3) Mike will attend Narcotics Anonymous (NA) meetings five to seven days a week where he will learn about the recovery support group and work the 12-step program with a sponsor and other peers. He will also familiarize himself with literature related to NA, such as the NA textbook. This will be measured by his ability to discuss how participating in NA supports him in meeting his treatment goals of abstinence and improving his relationship with his children and wife.

Interventions

The clinical social worker will facilitate group therapy three times a week and individual therapy one time per week with Mike. Motivational interviewing, twelve-step facilitation therapy, and cognitive behavioral therapy will be used to support Mike in abstaining from heroin and other drugs, learning about the brain disease, and utilizing NA to develop a recovery support system.

Implications for Social Work and Future Research

The content of this conceptual article has implications for social workers and other disciplines that treat substance use disorder. The most noticeable implication is that schools of social work can incorporate the abstinence and harm reduction clinical treatment plans into their curricula. This will support student learning in several ways, such as offering them examples of clinical treatment plans which they may be required to complete for assignments or at their internships, educating them on abstinence and harm reduction models of treatment, and offering them an opportunity to share their independent thoughts and experiences related to the disease model. Moreover, service learning is an important part of social work education, and Gallagher (2015) shared several benefits of this

pedagogy, including promoting civic engagement and collaboration with other disciplines, to name two. Students could complete service-learning projects where they hold townhalls or similar events to educate community members on modern substance use disorder topics, such as harm reduction. Common knowledge on substance use disorder treatment has been dominated by an abstinence-only model (Vakharia, 2024) which may have left many communities misinformed about harm reduction. Students, through service-learning and community engagement, may help bridge the gap between modern substance use disorder science and vintage approaches to treatment (e.g., abstinence-only model).

Next, a limitation of this conceptual article is that confusion, discourse, and debate remain with important language used in the substance use disorder profession. The author offered a model that examines the interplay between substance use disorder severity, treatment recommendations, and evidence of the brain disease. However, this alone does not create consensus among the many disciplines that treat substance use disorder. The article concludes that substance use disorder is a brain disease for some, but once again, it is important to note that some professionals simply disagree that it is a disease at all (Goldberg, 2020). Next, the most obvious limitation of this article is that it is not empirical, which is consistent with conceptual articles, but this needs to be noted. Only future research can test the ideas and themes that emerged from this article.

Three areas for future research are recommended to advance the science of substance use disorder treatment and recovery. First, research findings tend to center on those who have mild or severe substance use disorders (Boyd et al., 2020); therefore, less is known about those who have moderate substance use disorders. Johnson and colleagues (2020), for instance, examined treatment outcomes across the spectrum of substance use disorder severity, but statistically significant findings were mostly specific to those who had mild or severe substance use disorders. They found that individuals with severe opioid use disorder had the highest odds of receiving treatment and those with mild alcohol use disorder were least likely to receive treatment (Johnson et al., 2020). As shared throughout this article, for those who have the brain disease, it is progressive, so presumably a moderate substance use disorder, if untreated, will progress to a severe substance use disorder. Future research should complete longitudinal studies to learn more about the progressive nature of the brain disease. It seems that the substance use disorder profession has, fortunately, moved beyond a strictly abstinence, one-size-fits-all approach to treatment (Vakharia, 2024). With this shift comes the need to better understand why some patients respond well to reduced drug use while others will achieve recovery through abstinence. Longitudinal studies are going to be the best method to track substance use disorder symptomology over time and to further assess why some patients develop the brain disease and others do not.

Second, qualitative research methods are recommended to give patients and clinical social workers an avenue to share their thoughts, opinions, and experiences related to harm reduction and recovery. Individual interviews, for instance, would be a great avenue to assess how patients view recovery, their understanding of the brain disease, and their process in deciding if they are going to abstain from drugs or reduce their drug use. Focus groups with clinical social workers could be used to explore their thoughts related to the

role of harm reduction in substance use disorder treatment and identify potential barriers to implementing harm reduction treatment plans.

Third, more research is needed on the use and effectiveness of harm reduction treatment plans (e.g., reduced and controlled drug use) to support substance use disorder recovery. It is unknown how often harm reduction treatment plans are used and how they are implemented. There is a plethora of research on other harm reduction approaches, such as needle exchange programs, but, unfortunately, harm reduction treatment planning appears to be excluded from the literature. Abstinence has historically been the goal of substance use disorder treatment, so less is known about the effectiveness of treatment goals based on reduced drug use. It is also important to measure outcomes beyond drug use, which may include variables related to physical and mental health, housing, involvement in the justice system, compliance with medications, employment, education, family relationships, religion and spirituality, and social connectedness. Recovery is on a spectrum, and consistent with social work values and ethics, patients have the right to define recovery for themselves. Future research must move beyond simply measuring drug use and focus on the range of variables associated with recovery.

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