Research Related to Self-Efficacy in Substance Use Disorders

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Abstract. Substance use disorders (SUD) are now a major global problem, including substance abuse, addiction, and relapse. Numerous studies have demonstrated the significance of self-efficacy in the treatment of addiction as well as the prevention of relapse. Self-efficacy is defined as an individual's perception that he or she is capable of carrying out behaviors that produce desired effects. The level of patients with substance use disorders' perceived self-efficacy is influenced by a variety of factors in the reality of society, and the outcome expressed in terms of addiction and relapse rates can also be influenced by personal and social factors. In addition, the level of patients' perceived self-efficacy is influenced by many different factors. However, self-efficacy remains highly correlated with addiction and relapse rates over time. The study of self-efficacy in SUD is beneficial for the clinical prevention and treatment of SUD, as well as for the provision of appropriate social support. This paper illustrates the current theoretical and practical research on self-efficacy and makes suggestions for future research on self-efficacy.

Keywords: Self-efficacy; Substance use disorder; Withdrawal; Relapse.

1. Introduction

Substance use disorders (SUDs) are one of the serious challenges that many countries are facing nowadays, including the abuse, addiction, and relapse of substances such as alcohol and cocaine. Even after withdrawal from substance addiction, the probability of relapse after abstinence is extremely high, especially with opioids. According to Bandura and colleagues, self-efficacy can be described as a person's belief that he or she can accomplish the desired purpose, including completing the behaviors necessary to accomplish the purpose [1]. It is crucial to understand that self-efficacy is a multifaceted term with a variety of manifestations depending on the situation. In the SUD, this may be expressed as the patient's confidence in their ability to engage in behaviors to stop using the addictive substance. Self-efficacy is a crucial component for changing health behavior and is developed from social cognitive theory. Additionally, the Transtheoretical Model by Prochaska and DiClemente, the Theory of Planned Behavior by Ajzen and Madden, and Wittkiewitz and Marlatt's Relapse Prevention Model all put forth the indispensable and significant role of self-efficacy. One of the most reliable indicators of relapse during substance withdrawal is self-efficacy, which has a strong correlation with relapse rates. [2]. During withdrawal, individuals who have a high self-efficacy can quickly adjust when they fail to maintain control and return to substance use, but individuals who lack self-efficacy are far more likely to relapse fully [3].

2. The influence of self-efficacy on substance relapse

2.1. Research on self-efficacy of quitting smoking and alcohol

Self-efficacy is crucial for relapse prevention and serves as a behavioral indicator as well as an important predictor [2]. Self-efficacy in particular circumstances can be used to predict the frequency of alcohol or addictive drug use. However, compared to alcohol and other substances, self-efficacy seems to have a different effect in this scenario. According to an assessment of daily cessation self-efficacy in smokers who attempted to quit, maintenance of cessation led to increasing self-efficacy in smokers. If self-efficacy declined, it predicted relapse in smoking [4]. A study from 2021 confirmed that self-efficacy is a key psychological factor in smoking cessation and that sustaining long-term abstinence is associated with better levels of self-efficacy. Self-efficacy and alcohol relapse have a

negative association, according to past studies, but no such connection was found for drug relapse [5]. Patients who had a high self-efficacy were shown to have a higher likelihood of reaching six months of abstinence, and relapse time within a year of abstinence was significantly correlated with self-efficacy. These findings were discovered by Borrelli and Mermelstein. This demonstrates how critical it is to cultivate a high level of self-efficacy for abstinence before beginning clinical withdrawal. Over three months, patients who did not receive therapy for excessive alcohol use but who had high levels of self-efficacy showed a significant decrease in the frequency of binge drinking. Nevertheless, people with alcohol use disorders who have multiple histories of admissions to treatment may lead a high sense of self-efficacy not significantly associated with alcohol withdrawal [6].

2.2 Studies on drug withdrawal self-efficacy

A common conclusion that emerged from a comparison of four treatment methods for cannabis-dependent persons was that strong self-efficacy was related to longer withdrawal periods. A survey of patients who were receiving treatment at a narcotics rehabilitation center (NRC) in Malaysia revealed a significant inverse correlation between levels of self-efficacy and the likelihood of relapsing back into drug use [2]. According to the findings of a study that was carried out in 2013 on Iranian intravenous drug users, the amount of drug usage per day or the age at which a person used drugs for the first time did not significantly affect one's level of self-efficacy. On the other side, there was an adverse association between self-efficacy and abstinence duration that was statistically significant [3].

3. Factors affecting withdrawal self-efficacy

3.1The effect of family intimacy on substance withdrawal self-efficacy

The self-efficacy of people with SUDs can be influenced by a variety of elements in the real world, where people use addictive substances in a variety of settings, interact with a variety of individuals, and come from diverse familial histories. The time of life known as adolescence is characterized by heightened emotional fragility. In adolescent patients with SUDs, family factors are often prioritized. Families are small unit social groups that are very powerful and can influence individual drug abuse as well as relapse [7]. A harmonious family environment promotes positive emotional and affective responses, enabling individuals to have positive psychological qualities [8]. According to several studies, families of individuals with high levels of self-efficacy tend to become more tightly linked, and those who come from families that are closer-knit tend to have a higher level of self-assurance regarding their ability to resist drug use. Inadequate family closeness, on the other hand, can provoke unfavorable feelings, lead to low self-esteem and a lack of confidence in one's abilities, and all of these factors contribute to a lower likelihood of drug abstinence [9]. Numerous studies indicate that family treatments for behavioral issues brought on by adolescent drug addiction may be more successful and produce better results than non-family alternatives. Addicts' self-efficacy and self-esteem are significantly boosted when they receive information about withdrawal in front of family members (as supporters). This suggests a crucial role of family factors in the development of positive psychological qualities, which also include drug refusal and self-efficacy. Family factors have a significant impact on self-efficacy, but it has low selectivity and is a difficult factor to control. In contrast, the variability of social support is much higher.

3.2 Effects of social support factors on substance withdrawal self-efficacy

Because substance use disorders come in such a vast variety across the globe, many organizations and communities provide those who struggle with SUDs a variety of approaches to treatment, including support groups on the internet and 12-step programs like Alcoholics Anonymous (AA). The effectiveness of AA can also be attributed to its social support role. Participants in AA will form non-drinking relationships with others and receive other people's experiences of dealing with similar situations (alternative experiences), while this relationship allows others to motivate and comfort

themselves through words. If the individual decides to seek support from the fellowship, the individual will be encouraged to make changes to the way that they drink. After the issue has been resolved to everyone's satisfaction, the individual's sense of self-efficacy is bolstered even further (mastery experience). By continuing to abstain from alcohol, one can expect a rise in their sense of self-efficacy [10].

3.3Self-control and drug-refusal self-efficacy

In addition to social and family factors, other qualities of the individual are also a factor to be considered. Self-control is one of the psychological qualities of individuals that enable them to stay away from temptation and change wrong behaviors. With higher self-control people have a higher likelihood to choose to put off gratifying their desires and are more likely to succeed in a particular endeavor. According to Bandura's theory, self-control is one of the contributing factors to increased self-efficacy [11]. This might be since people with strong self-control have already overcome many difficulties and obstacles and reached many goals in their past lives, leading to a generally higher sense of self-efficacy. According to a study on these subjects, self-control is positively correlated with resilience, self-esteem, and self-efficacy. It was also notable to follow the path of "self-control, resilience, self-esteem, and self-efficacy". This pathway serves as an example of how self-worth and resilience act as mediators between self-control and self-efficacy. In this result, if individuals have higher self-control, then they will have higher resilience, which then leads to higher self-esteem and finally causes increased self-efficacy [12].

3.4 The impact of negative emotions on drug-refusal self-efficacy

The initial level of emotional stability had a substantial and, to a large extent, inversely proportional relationship with self-efficacy. People who are more emotionally stable are more confident that they can have control over their emotions. High-risk factors known to trigger substance abuse and relapse include negative emotional states. According to the findings of several studies, an individual's level of self-efficacy is classified as particular rather than universal when that individual's perceived ability to abstain from drug use is accompanied by a negative emotional state[13].Patients with obsessive-compulsive disorder who have a weaker feeling of self-efficacy in a negative mood state express even less than fifty percent confidence in themselves at this time and show more related substance use in the months following abstinence[13]. This would suggest that the predictive effect of low self-efficacy brought on by a poor mood on relapse cannot be understated to any significant degree.

3.5 Interesting research: Factors affecting self-efficacy - positivity emotionality

In a second study, the findings indicated that an enhancement in self-efficacy was associated with a drop in positive emotionality in patients who were being followed for substance use disorders [14]. People tend to demonstrate a high level of self-efficacy in a safe setting and exhibit excellent confidence in their ability to maintain abstinence. However, once treatment is complete, people need to face a variety of tempting factors and overcome psychological barriers to relapse. They are also likely to nurture a sense of shame about maintaining abstinence, which will lead to a subsequent decrease in their self-efficacy.

4. Interaction of motivation and self-efficacy in SUDs

In order to better comprehend the role that self-efficacy plays in the process of relapse prediction, it is crucial to consider the person's motivation to attain the goal. Because during the withdrawal process from addictive substances, People could already feel very confident in themselves and believe that they can completely stop using addictive substances, but they may not have a strong motivation or desire to perform the behavior even though they believe they are capable of doing so. Or a person with low self-control has a strong motivation to quit, such as a monetary reward or a family member

factor. Motivation does not function as a factor that affects self-efficacy, but it may affect the effectiveness of self-efficacy in the eventual withdrawal process. A substantial role for motivation was found in the association between self-efficacy and behavior implementation when self-efficacy and motivation were assessed and measured in addicts receiving treatment and analyzed with the percentage of days abstinence (PDA) [15]. As a further point, the results of the study showed that in patients with low self-efficacy, the high level of motivation had a much greater impact on the outcome than it did in those with high self-efficacy. The high motivation level had a tremendous positive impact, almost completely compensating for what they perceived as low confidence. For those with high self-efficacy, motivation level did not have a significant effect on PDA [15]. The significant impact of motivation level on patients with low self-efficacy can bring an important reference to the clinical treatment and relapse prevention of patients with substance use disorders (SUDs). Patients in treatment may be able to attain equally high levels of abstinence by depending on the drive of their strong internal motivation even if they have very low self-efficacy to stop using addictive substances.

5. Conclusion

In today's world of widespread SUDs, efforts have been made in various countries to prevent substance abuse, addiction, and relapse. In addition to appropriate medication, it is also important to give appropriate and strong social support, such as AA and various mutual support network forums, which can be a powerful aid in the treatment of SUDs, where the value of self-efficacy involvement is very significant. Improved self-efficacy enables individuals to achieve the best possible withdrawal and prognosis when given certain treatment conditions. Because self-efficacy is a diverse concept, it is necessary to study general self-efficacy and specialized self-efficacy for various substances of abuse to further investigate this topic. Also, self-efficacy is influenced by many factors and is very flexible. It is not set in stone. In principle, the patient's sense of self-efficacy is susceptible to being influenced by any method of medication treatment methodology. In addition to this, factors such as emotional state, the degree of family connectedness, and an individual's view of their level of self-efficacy can be influenced by a variety of factors, including their social support network. Furthermore, other indicators do not directly affect the level of self-efficacy, such as the patient's motivation for recovery, which is described in this paper. Motivation for recovery is something that goes hand in hand with self-efficacy during the process of substance withdrawal, but it does not directly affect the increase or decrease of self-efficacy per se. However, because it affects the outcome through its interaction with self-efficacy, more research is needed. There should be many more indicators like motivation, because of this, it is currently unable to identify the relationship between levels of self-efficacy and the success rate of withdrawal medication. Future researchers should investigate more deeply in terms of the factors that interact with self-efficacy in withdrawal.

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