

Predictors of Substance Misuse Recovery and Relapse: A Literature Review

By Hattie Kahl, Public Health Council Intern

Southern Vermont AHEC, College Student Healthcare Internship Program (CSHIP)

Summer 2024

The substance use disorder epidemic has been plaguing the United States since the mid-to-late 1990s. In 2022, 48.7 million, or 17.3% of the United States population met the diagnostic criteria for a substance use disorder in the past year. The highest prevalence of diagnostic substance use disorders was among young adults aged 18-25, approximately 9.7 million people (SAMSHA, 2022). Addiction research and related fields have recognized that people can recover from substance use disorder but the factors and scientific knowledge of when and what sparks recovery is still minimal. The gold standard devised by researchers and clinicians is ‘recovery capital,’ which refers to a set of resources necessary to sustain recovery (Best and Laudet). Recovery capital has four components: physical, social, human, and cultural. Physical capital is defined as assets, like money or housing, that may increase recovery potential - for example, being able to live away from friends who engage in substance misuse or affording residential treatment (Best and Laudet). Social capital is the resources from personal relationships, such as family or support groups. Human capital is skills, good physical health, positive outlook, etc. Lastly, cultural capital includes “values, beliefs, and attitudes” that move a person away from the social conformity of drug culture and toward societal behaviors (Best and Laudet, 4). Chances of sustained sobriety increase as one’s recovery capital increases. The growth of personal recovery capital has ripple effects for families, others in recovery, and the community. However, it is important to acknowledge that recovery is not a linear process and to recognize the potential signs and predictors of relapse.

More than 60% of people will relapse within their first-year post-treatment. It can take four to five years of remission for the risk of relapse to drop below 15% (Surgeon General Report). A relapse is defined as when a person returns to using drugs or alcohol after a time of sobriety (American Addiction Centers, 2024). A ‘lapse’ is when an individual uses drugs or alcohol briefly before promptly stopping. However, it is important to note that relapse happens gradually, starting weeks or months before the first use. Relapse can be broken down into three stages: emotional, mental, and physical. Emotional relapse occurs before using or the conscious thinking about using a substance. However, an individual is not emotionally regulating or coping healthily. Some may fail to use coping mechanisms, isolate themselves from their social support networks, and neglect self-care (Melemis, 2015). The next stage is mental relapse, where an individual becomes aware of conflicting feelings about their sobriety. One may glorify their past drug use or minimize the personal and social consequences of their past use. This stage may extend into physically seeking out an opportunity to use. The last stage is the physical relapse in which an individual uses (Melemis, 2015). Many risk factors precede and occur during these three stages of relapse.

Risk factors for relapse can be broken down into three categories: biological, psychological, and environmental/social. Biological factors include age, state of physical health, and genetics. Substance misuse rates spike during adolescence, peak during the mid-20s, and then decline (Surgeon General Report, 2016). The older one is at the onset of a substance use disorder the better the treatment outcomes and the higher probability of remission. Younger age of onset and treatment is associated with higher rates of relapse (Sliedrecht et al, 2019). Individuals suffering from coexisting chronic illnesses or other physical ailments are more likely to return to drug use after treatment. Often an individual will return to substance use due to being unable to cope with chronic symptoms, such as pain (Sliedrecht et al, 2019). Researchers and clinicians have widely debated the relevance and impact of genetics and family history on one's risk for substance misuse and potential relapse. Family history has an impact on one's attitude toward substance use. If substance use is common in the household, it exposes a child to that environment at an early age, increasing their likelihood of using substances later on (Surgeon General Report, 2016). Studies around genetic variations and substance use disorders are still emerging. However, the current consensus is that genetics do affect the risk of substance use disorder and relapse (Sliedrecht et al, 2019). Many of the biological factors are connected to the psychological influences for relapse.

Psychological risk factors for substance use disorder relapse include coexisting psychiatric conditions, the severity of symptoms, history of use and treatment, and low self-efficacy. Individuals suffering from coexisting psychiatric conditions and substance use disorders are associated with worse treatment outcomes and higher rates of relapse (Alemi et al, 2009). Often individuals with severe psychiatric conditions have a harder time coping with stressful situations and hardships related to treatment and, therefore return to use. The more severe a substance use disorder is the more likely an individual will experience more symptoms. In an alcohol use disorder study, researchers found that higher cravings and chronic relapsing cycles characterized more severe disorders (Chiappetta et al, 2014). Thus, making it harder for individuals to enter remission. History of drug use and treatment both influence treatment outcomes. The number of drugs used, the frequency of use, the age of onset of misuse, and the length of addiction and sobriety all impact treatment outcomes. The greater number of drugs used, earlier age of onset, and longer length of addiction are associated with poorer outcomes (Alemi et al, 2009). There are mixed studies on the impact of past treatment attempts and future outcomes. Some studies found that a greater number of past treatments and "subsequent readmission to treatment" are associated with poorer outcomes (Alemi et al, 2009 493). However, longer lengths of treatments could have a positive impact. Higher levels of motivation and self-efficacy are associated with positive outcomes. Individuals who enter treatment with more motivation are often more successful. Especially if that individual has accepted that they have a problem and took the initiative to seek help (Alemi et al, 2009). Self-efficacy is considered a protective factor, as post-treatment one can reenter more functionally, and

access community resources, and employment (Sliedrecht et al, 2019). Post-treatment environmental and social factors have a direct impact on relapse.

Environmental and social relapse factors include employment, exposure to triggers, interpersonal conflicts, lack of social support, and physical environment. Steady and stable post-treatment employment and an employer who supports one's recovery are associated with maintained sobriety. Those who enter treatment with greater employment conflicts and do not resolve the issues while in treatment have poorer outcomes (Alemi et al, 2009). Employment can be seen as either a protective or a risk factor for relapse depending on the environment, support from the employer, and work-related stress. One's physical and social environment post-treatment can have positive and negative effects. Marlatt and Gordon, the pioneer researchers of relapse prevention, state that relapse begins with a high-risk situation that is followed by a poor coping response (American Addiction Centers, 2024). Living or socializing in an environment where substances are readily available and use is encouraged, decreases the likelihood of maintaining sobriety post-treatment (Alemi et al, 2009). Continuous exposure to triggers can lead to the three stages of relapse and is prompted by a poor coping response to the related stress and negative emotions of the exposure. However, living in an environment like a recovery residence and having peer support is a supportive factor. Maintaining a good and stable relationship with family and friends who are not in recovery is also a positive, as it connects the individual to the community (Alemi et al, 2009). All three categories of relapse factors: biological, psychological, and environmental/social, have protective and harmful attributes that impact an individual's recovery and potential relapse.

Bibliography

American Addiction Centers. "Addiction Relapse: Risk Factors, Coping & Treatment Options." American Addiction Centers. Last modified January 5, 2024. <https://americanaddictioncenters.org/treat-drug-relapse>.

Alemi, Farrokh, Richard C. Stephens, Shirley Llorens, and Benjamin Orris. "A Review of Factors Affecting Treatment Outcomes: Expected Treatment Outcome Scale." *The American Journal of Drug and Alcohol Abuse* 21 (1995): 483-509. <https://www-tandfonline-com.ezproxy.uvm.edu/doi/abs/10.3109/00952999509002712>.

Best, David, and Alexandre B. Laudet. "The Potential of Recovery Capital." *Faces and Voices of Recovery*. <https://facesandvoicesofrecovery.org/wp-content/uploads/2019/06/The-Potential-of-Recovery-Capital.pdf>.

Chiappetta, Viviana, Olaya García-Rodríguez, Chelsea J. Jin, and Carlos Blanco. "Predictors of Quit Attempts and Successful Quit Attempts among Individuals with Alcohol Use Disorders in a Nationally Representative Sample." *Drug and Alcohol Dependence* 141 (August 2014): 138-44.
https://www.sciencedirect.com/science/article/abs/pii/S0376871614009016?casa_token=Bw_ZeTWffekAAAA:E8EZInFsN8b2hQCLSmwTyCZHqSN5YVddOQzwlHuJWVBqA9VaE2_OQCLi4mj-3av9KODjNI3Gaw.

Melemis, Steven M. "Relapse Prevention and the Five Rules of Recovery." *Yale J Biol Med*, September 2015. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4553654/>.

Sliedrecht, William, Ranne de Waart, Katie Witkiewitz, and Hendrick G. Roizen. "Alcohol Use Disorder Relapse Factors: A Systematic Review." *Psychiatry Research* 278 (August 2019): 97-115.
<https://www.sciencedirect.com/science/article/abs/pii/S0165178119303841>.

Substance Abuse and Mental Health Services Administration, ed. *Highlights for the 2022 National Survey on Drug Use and Health*. 2022. <https://www.samhsa.gov/data/sites/default/files/reports/rpt42731/2022-nsduh-main-highlights.pdf>.

U.S. Department of Health and Human Services (HHS), and Office of the Surgeon General. *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Behavior*. Washington DC: HHS, November 2016.