

knowledge snapshot



Does addiction substitution occur during recovery from a substance use or gambling addiction?

What this article is about

When a person is recovering from an addiction, they may increase another addictive behaviour. This is called addiction substitution. For example, a person recovering from alcohol misuse may smoke more than before. Evidence to support addiction substitution is mixed. Some studies have found support for the idea. Other studies have found that people decrease other addictive behaviours while they are trying to stop or reduce their use of a primary addiction. This is known as concurrent recovery. This article is a systematic review of studies on addiction substitution. The aim is to understand whether addiction substitution, concurrent recovery, or neither is more likely to happen during recovery. Another aim is to understand what factors predict addiction substitution and the impact on treatment outcomes.

What was done?

The authors searched for studies that were published between 1975 and May 2021. To be included in the review, studies must be empirical in nature (i.e., they collected data from participants). Studies must examine changes in another addictive behaviour during recovery from a primary addiction. Studies must also be available in English. The authors focused on quantitative studies. In other words, studies with data that were expressed in numbers and analyzed through statistical methods.

What you need to know

A total of 96 studies met the inclusion criteria. The most common primary addiction was opioid misuse (29 studies). This was followed by cannabis misuse (20 studies), and unspecified use (17 studies). Unspecified use referred to when a study did not mention the

Why is this article important?

Addiction substitution occurs when people increase another addictive behaviour while trying to recover from a primary addiction. The authors reviewed 96 studies on the topic. Most studies focused on substance misuse as the primary addiction. Only two studies focused on problem gambling. Almost two-thirds of studies provided statistical results that could be used to infer to a broader population. Over half of those studies found support for concurrent recovery. This is when people decrease other addictive behaviours during recovery. About 17.65% found support for addiction substitution, and 19.12% found no change in other addictive behaviours. Several factors predicted addiction substitution, including male gender, younger age, and presence of other mental health problems. Addiction substitution was associated with poorer treatment outcomes.

substance that participants were recovering from or had grouped several substances together. The other studies focused on nicotine misuse (12 studies), alcohol misuse (12 studies), and cocaine misuse (4 studies). Two studies focused on problem gambling.

Most studies recruited people who were seeking treatment (69.79%). About one-third of the studies recruited people from the community. The number of participants ranged from 6 to 14,885. Most studies involved adults (88.54%). Most studies used a longitudinal design (89%), which followed participants over a period of time. Attrition rates ranged from 0 to 86%. Attrition rate is based on the percentage of participants who drop out of a study early.

Main findings

Almost two-thirds of the studies (68 studies) provided statistical results that could be used to infer to a broader population. Over half of those studies found support for concurrent recovery (36 studies). Twelve studies (17.65%) found support for addiction substitution. Thirteen studies (19.12%) found no change in other addictive behaviours. Seven studies (10.29%) reported mixed results, with increase in some addictive behaviours and decrease in others.

Overall, the results suggest that addiction substitution is more likely to occur among people recruited from the community. Concurrent recovery is more likely to occur among people who are seeking treatment. For opioid misuse as the primary addiction, the results suggest concurrent recovery is more likely to occur. For cannabis misuse, the results are mixed. For nicotine misuse, the results suggest concurrent recovery. For alcohol misuse, the results are mixed. All four studies on cocaine misuse found support for concurrent recovery. For problem gambling, one study with participants from the general community reported an increase in substance use or internet use during recovery. One study with participants who were seeking treatment reported mixed results.

Predictors of addiction substitution and impact

A total of 22 studies looked at factors that predicted addiction substitution. Being male, younger age, higher socioeconomic status, marital status, and ethnicity were found to be predictors. In terms of clinical factors, younger age of onset, more severe substance use problems, and presence of other mental health problems were linked to addiction substitution. Other predictors included less use of self-help strategies, weaker coping skills, less use of helping relationships, peer rejection, and pro-risk bias.

Eleven studies looked at the impact on treatment outcomes. Most studies found that addiction substitution increased the risk of relapse and made it harder to stay away from the primary addiction. Only two studies did not find any impact.

Who is it intended for?

This review can inform researchers and treatment providers. For example, it would be useful to know if targeting underlying issues, such as poor emotion regulation, leads to greater concurrent recovery.

About the researchers

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