

Article 4: Human Development and Substance Use Disorder

Substance use disorders can negatively impact factors linked to **human development**, including **health across different development stages** (Alvarez-Monjaras et al., 2018; Castellanos-Ryan et al., 2013; Daley, 2013; Fayaz Ahmad Paul et al., 2024; US Department of Health and Human Services, 2016; Schulte & Hser, 2014), **socioeconomic development** (Lee et al., 2015; Lin et al., 2024), and **housing stability** (Austin et al., 2021; Owoade et al., 2023).

Substance Use Disorders and Health across different Development Stages

Research has found that substance use disorders can disrupt people's health across the lifespan, from prenatal development to adulthood (Alvarez-Monjaras et al., 2018; Castellanos-Ryan et al., 2013; Daley, 2013; Fayaz Ahmad Paul et al., 2024; US Department of Health and Human Services, 2016; Schulte & Hser, 2014).

For instance, a study found that alcohol and drug use during pregnancy can result in fetal alcohol spectrum disorders and other developmental problems in infants. The researcher also stated that children of parents dealing with substance use disorders are more likely to experience neglect, abuse, and a wide range of developmental delays leading to emotional, behavioral, and cognitive issues (Daley, 2013).

Other studies have found that substance use disorders in adolescence (a crucial stage for brain development) can disrupt cognitive processes linked to neurological functions such as memory, attention, planning, decision-making, and regulation of emotions. Furthermore, adolescents, in particular, are more susceptible to developing substance use disorders due to brain immaturity, peer pressure, and experimentation. (Alvarez-Monjaras et al., 2018; Castellanos-Ryan et al., 2013). Such disorders may resurface later in life depending on individuals' previous experiences with addiction, coping mechanisms, and their overall capacity to handle life stressors.

Research also showed that substance use disorders oftentimes have detrimental effects on health and overall wellbeing in adulthood. (Fayaz Ahmad Paul et al., 2024; US Department of Health and Human Services, 2016; Schulte & Hser, 2014).

For instance, substance use disorders can worsen chronic health conditions such as cardiovascular disease, respiratory problems, and liver disease (Schulte & Hser, 2014). They can also trigger mental disorders like anxiety and depression, and negatively affect adults' social relationships, work performance, and overall quality of life (US Department of Health and Human Services, 2016; Schulte & Hser, 2014).

Substance Use Disorders and Socioeconomic Development

Substance use disorders often hinder socioeconomic development due to factors such as low socioeconomic status, unemployment, and financial constraints (Lee et al., 2015; Lin et al., 2024).

In order to look further into this phenomenon, a study tested whether unemployment could predict young adults' heavy episodic drinking, cigarette smoking, and cannabis use after taking into account individual development and substance abuse. Drawing on the lifespan perspective, the study also “examined whether the link between unemployment and substance use among young adults differed for those who experienced low socioeconomic status in childhood, compared to those who did not” (Lee et al., 2015, p.1).

Researchers used data from the Seattle Social Development Project (SSDP) —a panel study examining a broad range of developmental outcomes from ages 10 to 33. Participants' baseline substance use, gender, ethnicity, and adult educational attainment were also considered in the study. Results showed that unemployment was associated with young adults' episodic drinking, and possibly cigarette use. Furthermore, the detrimental impact of unemployment on use of the three substances was greater for adults who spent their childhood and adolescence in a lower socioeconomic status household (Lee et al., 2015).

On that same note, another study looked at the impact of social determinants of health on the life course of substance use disorders. Thus, researchers conducted a systematic review of 50 longitudinal studies focusing on variables from PubMed, Embase, and Web of Science (Lin et al., 2024).

Findings showed the following points:

- “Among the 50 studies identified, ten revealed parental monitoring/support and early childhood education as protective factors, while negative peer influences and neighborhood instability were risk factors of substance use initiation.”
- “Nineteen articles reported factors associated with escalation in substance use, including unemployment, neighborhood vulnerability, negative peer influence, violence/trauma, and criminal justice system involvement.”
- “Ten articles suggested that employment, social support, urban living, and low-barrier medication treatment facilitated treatment participation, while stigma and criminal justice system involvement had a negative impact on treatment trajectory.”
- “Four studies suggested that unemployment, unstable housing, criminal justice system involvement, and lack of social support were associated with overdose and mortality.”
(Lee et al., 2015, p.1)

The researchers of the study argued that the influence of social networks and early life experience on the course of life of substance use disorders should be explored further (Lee et al., 2015).

Substance Use Disorders and Housing Stability

Research has found complex bidirectional relationships between substance use disorders and housing stability, since substance abuse can lead to homelessness, and homelessness can aggravate substance use disorders. Therefore, housing stability is often considered a crucial social determinant of health

because lack of housing (or any unfulfilled needs in such regards) can negatively impact health and increase vulnerability to substance use disorders as a result (Austin et al., 2021; Owoade et al., 2023).

On that note, a study assessed the relationship between housing stress and later substance use outcomes in US adults. Following that lead, researchers conducted a systematic review of evidence on this topic by looking at articles in PubMed, Web of Science, PsycInfo, Social Work Abstracts, and Sociological Abstracts, among other databases. 38 articles published in the period 1991-2020 showed an association between homelessness and increased likelihood of substance use, substance use disorders, and overdose death. Other articles linked unstable housing to increased substance use disorder symptoms, and decreased likelihood of completing addiction treatments (Austin et al., 2021).

The researchers argued that even though the results for housing stress and substance use outcomes were not consistent, innovative interventions addressing housing stress (namely homelessness) may help mitigate some substance use outcomes (Austin et al., 2021).

Another study looked at mental health and substance abuse rates among homeless people, in order to better understand related life outcomes, and the implementation of federal/state measures (such as housing programs) to tackle such problems. Thus, the researchers conducted a systematic review of evidence from 1990 to 2023 across several academic databases including Google Scholar, Science Direct, Medline, Embase, and Scopus. Furthermore, participants between 18 to 64 years old were assessed by looking at mental health challenges, substance use, and homelessness (Owoade et al., 2023).

Results showed the following insights:

- Alcohol posed the biggest substance abuse challenge before 2018, but methamphetamine use emerged as equally dangerous by that same year.
- The most recent statistics provided by both the US Department of Housing and Human Development and the Substance Abuse and Mental Health Services Administration, showed growing numbers of homeless people who were dealing with mental health and substance use disorders.
- 60% of the individuals experiencing homelessness developed mental health disorders and substance addiction as their situation worsened.

Even though interventions and treatment data were excluded in this assessment, the authors pointed out that individuals often achieve better treatment outcomes when addiction and mental health treatment programs are provided with access to housing. Hence, they argued that a successful program for such a purpose must offer safe housing options in combination with psychological care and drug recovery services (Owoade et al., 2023).

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