

The Link Between Drug Dependency and Criminality: A Systematic Review

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Drug dependency is a complex and challenging condition that is strongly associated with increased criminal activity. The present review using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines summarized the link between drug dependency and criminality. Keywords such as “drug dependency,” “criminality,” “drug-related offenses,” “psychoactive drugs,” “model of addiction,” “illicit drug,” “drug abuse,” and “crime” were typed into the Sage, Wiley Online Library, and PubMed databases to find information related to the link between drug dependency and criminality. The search covered open-access published articles from January 2018 to August 2022. The results indicate that a high proportion of drug-user crimes involve offenses such as crime against persons (e.g., murder, rape, and assault), property, and drug-related offenses. In light of these findings, greater consideration should be given to drug dependency, as it is a significant risk factor for criminal behaviour. Furthermore, the search results produced the identification of how different types of drugs may give rise to different patterns of criminal offending. Through this review, it is apparent that individuals with poly-drug consumption have a higher likelihood of engaging in diverse offense types. Thus, the key indicators of drug use and criminality should be explored in greater detail, particularly when the offense is disaggregated by types of crime. Moreover, there is a need to improve our understanding of the association between distinct drug-use types and various crime categories to circumvent naïve assumptions about drug-using offenders.

Keywords: criminality, drug dependency, drug abuse, risky behavior

Extensive criminological literature has shown a strong and consistent correlation between drug use and criminal offenses (Hechanova et al., 2018; Yunos et al., 2018). Compared with the general population, drug use is more prevalent among individuals involved in criminal offenses (Liu & Visher, 2021). According

to Anderberg et al. (2022), roughly 55% of inmates have a history of drug use compared with 12% of non-criminal adults. Anderberg et al. (2022) noted that 50% of property offenders, 40% of violent offenders, and 50% of drug offenders reported using drugs at the time of committing their offenses.

A burgeoning line of research has consistently revealed that drug use typically begins during adolescence (Anderberg et al., 2022; Kuettel, 2021). Adolescence is a unique developmental phase in which an individual undergoes multiple biological and cognitive changes (Bennett & Holloway, 2018). Adolescents are at a higher risk of engaging in risky behaviours, such as drug use or criminal behaviour, due to shifting peer affiliation, identity transformation, and increased responsibilities (Bennett et al., 2018). Additionally, adolescents who consume drugs are more likely to experience negative consequences, resulting in physical harm (e.g., drug overdose), mental health conditions (e.g., suicide, depression), and dangerous behaviour (e.g., impaired driving, high-risk sexual behaviour; Alamdarloo et al., 2019).

In general, an individual may become psychologically and/or physiologically addicted to diverse types of psychoactive drugs such as stimulants, opioids, and/or marijuana. Drug abuse may increase violent behaviour among users in both public and private spaces. Indeed, violent behaviour is related to illicit drug use with a medium effect size ($d = 0.45$; Sibley et al., 2020). With respect to the causality between illicit drug use and public violence, drug dependency contributes to half of violent crimes by increasing the likelihood of aggressive behaviour (Felson et al., 2018; Sibley et al., 2020). Sibley et al. (2020) have noted that drug use induces disinhibition causing impaired decision-making, agitation, and inappropriate social behaviour. A myriad of research elucidate the common characteristics of hardcore

drug users including: (i) displaying a similar prevalence of drug use and offending; (ii) exhibiting a greater variety of drug use; and (iii) presenting a gradual reduction of drug use and offending as they transition from adolescence to adulthood (Felson et al., 2018).

The psychological model of addiction maintains that addiction stems from maladaptive coping mechanisms such as anxiety, poor emotional regulation, low self-esteem, and lack of resilience, whereas the sociological model upholds that drug abuse stems from the maladaptive coping skills that attend with macro-level issues, such as homelessness, poverty, social conflict, social trauma, family trauma, peer pressure, and sociocultural norms (Ibrahim et al., 2020). On the contrary, the moral model maintains that addiction is a consequence of character deficiencies, personal choice, lack of positive values, and personal failure (Ibrahim et al., 2020).

The response from community members toward drug addicts has generally been negative, as these individuals with substance abuse disease have encountered discrimination, stigmatisation, and social rejection (Li, Zhao, & Zhang., 2020). Similarly, meta-analysis results demonstrate that even health professionals' attitudes towards individuals with substance abuse disorders are generally negative and mainly focus on elements of blaming (Li et al., 2020). Acknowledging the role of drug dependency and criminal behaviour, the current study seeks to develop an improved understanding of drug-related crime to impart significant

information to the existing body of literature in the crime studies field.

Method

The present review using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines summarized the link between drug dependency and criminality. Keywords such as “drug dependency,” “criminality,” “drug-related offenses,” “psychoactive drugs,” “model of addiction,” “illicit drug,” “drug abuse,” and “crime” were typed into the Sage, Wiley Online Library, and PubMed databases to find information related to the link between drug dependency and criminality. The search covered open-access published articles from January 2018 to August 2022.

The methodology adopted for the present study involved the following queries, namely, (i) what is the volume and nature of the research conducted on drug dependency and criminality from 2018 to 2022? (ii) Which of the data was gathered from a primary resource? All data extracted was from the internationally recognized list of Thomson Reuters-now known as Clarivate, including peer-reviewed articles only. The “grey literature,” such as research theses, government reports, and conference proceedings were not included in the present study.

Table 1 and Figure 1 show how data on internal management practices were

systematically gathered and the inclusion and exclusion criteria were set up to reduce the data. Step 1 yielded 74 peer-reviewed articles from four journal databases (Open Access) entered onto a spreadsheet. Step 2 filtered duplicate materials and articles with nonrelevant titles, which were removed from the spreadsheet, leaving behind 62 articles. Step 3 involved further scrutinisation of the search results by reading the abstracts of 62 articles to further refine the research relevance. At this stage, articles were reduced from 62 to 24 due to exclusion. This indicated that a large number of articles did not discuss the link between drug dependency and criminality.

The remaining 24 articles were then read in detail to check for their relevance and quality regarding design and methodology. This resulted in the final selection of 22 articles for the purpose of review. These articles covered the link between drug dependency and criminality. Moreover, two more articles were dropped at this stage because its conclusions were somewhat unclear. Thus, an abstract and keyword search starting from 74 articles ended in the final selection of 20 that focused on the link between drug dependency and criminality. Table 2 delineates the summary of articles that were reviewed in this study.

Table 1

Inclusion/exclusion criteria

Inclusion criteria	Exclusion criteria
Publication years: 2018 till 2022	Publication years: before 2018
Publication language: English only	Publication language: all languages except English
Credibility of articles: Only open-access (Subscribed by the University) Scopus and ISI-based journals related to drug dependency and criminality	Credibility of articles: grey literature
Research theme or keywords: drug dependency, criminality, drug-related offenses, psychoactive drugs, model of addiction, illicit drug, drug abuse, and crime	Research theme or keywords: except keywords such as drug dependency, criminality, drug-related offenses, psychoactive drugs, model of addiction, illicit drug, drug abuse, and crime

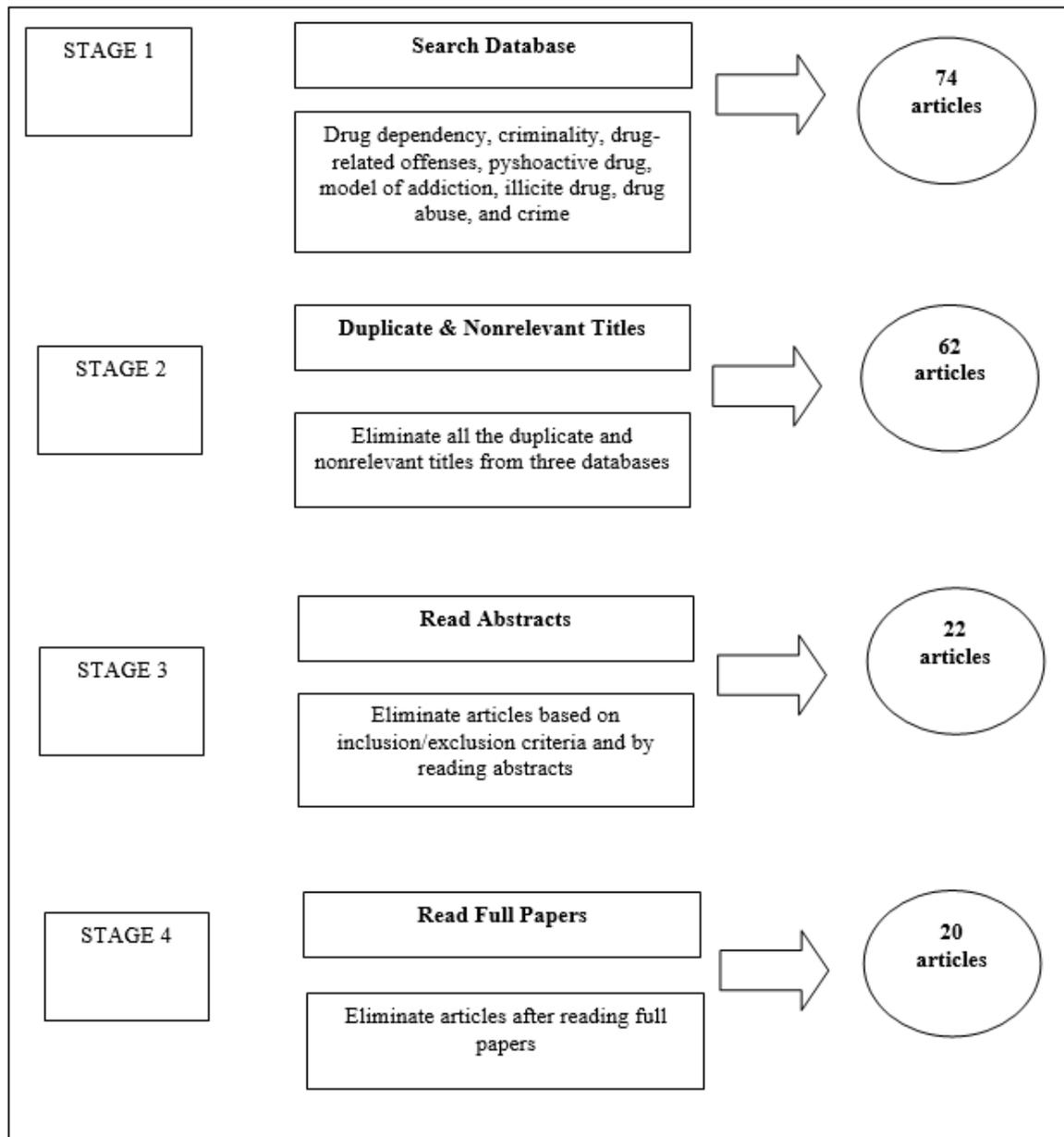


Figure 1 Schematic representation of systematic literature selection

Table 2

Summary of articles

No.	Author(s)	Year	Sample	Measures	Findings
1.	Hechanova, M.R.M., Alianan, A.S., Calleja,	2018	48 illicit drug users	Community-based drug intervention,	- 14% of participants had scores inactive of or full

	M.T., Melgar, I.E., Acosta, A., Villansanta, A., Bunagan, K., Yusay, C., Ang, A., Flores, J., Canoy, N., Espina, E., Gomez, G.A., Hinckley, E.S., Tuliao, A.P., & Cue, M.P.			drug users	dependency, 39% had some symptoms, and 47% had no symptoms of drug dependence. - Participant's reasons for using drugs including; – peers, family, work, and personal reasons.
2.	Yunos, N., Ibrahim., F., Zakaria, E., Wan Sulaiman, W.S., Hassan, N., Kamaluddin, M.R., & Tharshini., N.K.	2019	407 inmates with substance abuse issues	Drug craving, high- risk situation for relapse	- There is a positive and significant moderate relationship between drug craving and high-risk situations for relapse ($r=0.452$, $p<0.01$).
3.	Liu, L., & Visher, C.A.	2021	713 male respondents	Drug use, social disorganization, family bonds, community cohesion	- Family bonds exhibited a significant inhibitory effect on illicit drug use. Respondents who had stronger family bonds demonstrated significantly lower odds of drug use. A one-unit increase in family bonds brought a decrease in the risk of drug use by 32% (odds ratio = 0.68).
4.	Anderberg, M., Dahlberg, M., & Wennberg, P.	2022	469 young people with substance use problem	Criminality, young people, substance use	- 61% of the young people had previously been

					arrested nu the police and 33% had been convicted of a crime, boys to a significantly greater extent than girls.
5.	Kuettel., B.T.	2021	842 male adolescent offenders	Criminal behavior, life course, substance abuse	- Adolescents with elevated drug use variety make up a large proportion of frequent offenders.
6.	Bennett, T., & Holloway, K.	2018	7,855 substance abusers	Drug, alcohol, crime	- 10% of students who used drugs had committed substance-related crimes.
7.	Alamdarloo, G.H., Khorasani, S.M., Najafi, M., Jabbari, F.S., & Shojaee, S.	2019	24 Iranian males with addiction	Addiction, CBT, stress, depression	- Significant difference in the severity of depression, anxiety, and stress (Wilks's lambda = 0.489; $F = 5.92$; $p < .0001$).
8.	Sibley, A.L., Schalkoff, C.A., Richard, E.L., Piscalko, H.M., Brook. D.L., Lancaster, K.E., Miller, W.C., & Go, V.F.	2020	27 people who use drugs	Addiction, recovery, constructions of the self	- People who use drugs describe themselves as being blameworthy, immoral, callous, and complicit.
9.	Felson, R.B., Osgood, D.W., Cundiff, P.R., & Wiernik, C.	2018	715 male offenders	Drug, hedonistic lifestyles, economic crime	- Offenders have engaged in property crime when they used hard drugs, marijuana, and

					alcohol.
10.	Ibrahim, F., Mohd Hoesni, S., Zakaria, E., Nen, S., Sarnon, N., Alavi, K., Subhi, N., & Mohamad, M.S.	2020	282 prisoners	Drug abuse, street crimes	- 56% of respondents were involved in crime after using drugs whereas 57.4% of respondents used drugs before committing a street crime.
11.	Li, S.D., Zhao, R., & Zhang, H.	2020	930 male and female drug users	Drug use, crime, Chinese drug users	- Drug users who scored higher on drug use disorder had higher odds of committing a drug- related crime (odds ratio = 1.050, p<.01).
12.	Tiberg, F., & Nordgren, J.	2022	248 sentenced individuals	Criminals, addicts, recreational users, online drug purchase	- Five common substances purchased are benzodiazepines, tramadol, amphetamine, cannabis, and synthetic cathinones.
13.	Karriker-Jaffe, K.J., Subbaraman, M.S., Greenfield, T.K., & Kerr, W.C.	2018	439 drug users	Drug, substance use, adults, treatment	- 26% of drug users met the criteria for mild AUD and 4% of drug users met the criteria for DA.
14.	Ganson, K.T., Jackson, D.B., Testa, A., & Nagata, J.M.	2022	12,288 adolescents	Substance use, intimate partner violence	- Incurring an injury from IPV victimization: AOR = 4.90, 95% CI = 1.71–14.01; and

					sexual IPV victimization AOR = 2.44, 95% CI = 1.05–5.65.
15.	Ibrahim, F., Zakaria, E., Nen, S., Sarnon, N., Hassan, N., & Mursidam, S.M.	2020	380 former drug addicts	Social pressure, former drug addicts	- Drug craving ($\beta=.436, p<.05$), family relationship conflict ($\beta=.315, p<.05$), and emotional disturbance ($\beta=.224, p<.05$). 05) are found to influence social pressure among former addicts.
16.	Sfendla, A., Martinsson, B., Filipovic, Y., Senhaji, M., & Kerekes, N.	2021	177 male inmate	Psychological distress, prisoners, drug-dependence	- A male inmate with drug dependence has higher psychological distress.
17.	Ikoh, M.U., Smah, S.O., Okwanya, I., Clement, U.A., & Aposhi, Z.A.	2019	520 youth with drug abuse issues	Drug abuse, youths	- Drug abuse was significant due to a lack of parental control, easy access to drugs, and the emerging street culture of gangsters.
18.	Heradstveit, O., Skogen, J.C., Boe, T., Hetland, J., Pedersen, M.U., & Hysing, M.	2018	2,438 respondents between the age of 7-9, 11-13, and 16-19 years of age	Childhood, drug use	- Externalising problems were positively associated with drug use (adjusted odds ratios [AORs] ranging from 1.24 to 1.40, all $p < .05$), while internalising

				problems were negatively associated with all measures of drug use (AORs ranging 0.83 to 0.88, all $p < .05$).
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19.	Johnson, B., Richert, T., & Svensson, B.	2018	687 adult children with drug problem	Parents, victims, property crime, adult children, drug problem
				- 50.7% of parents declared that they had been victims of theft or burglary committed by their children. 9.9% of parents had been exposed to property crime.
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20.	Svensson, B., Richert, T., & Johnson, B.	2019	32 adult children with drug problems (and their parents)	Parents, adult children, drug problems,
				- Parent-child interaction is dominated by the child's destructive drug use.

Result and Discussion

In general, there is a strong association between drug use and crime (Ibrahim et al., 2020; Li et al., 2020). In the criminological literature, marijuana has been found to be a gateway drug that increases the likelihood that users will subsequently abuse other substances, such as methamphetamines, cocaine, and heroin. According to Li et al. (2020), heroin or cannabis is unlikely to induce violent behaviour, however, stimulants, such as cocaine and methamphetamine are strongly associated with violent behaviour. The link between cannabis use and criminal behaviour is strongly associated

with weaker drug-related criminality, such as theft (Anderberg et al., 2022; Li et al., 2020). Nevertheless, the relationship between non-drug-related crimes becomes stronger in relation to hardcore use of cannabis, amphetamines, and opiates (Anderberg et al., 2022; Li et al., 2020; Tiberg et al., 2022). Besides, Tiberg et al. (2022) stated that the concurrent use of cocaine and alcohol may contribute to severe forms of violence (e.g., using a knife or gun as a threat, physical assault), as compared with cocaine or alcohol use alone.

A high proportion of crime cases involving individuals with substance abuse disorders

involves offenses such as crime against persons (e.g., murder, rape, arson, assault), property crimes (e.g., forgery, theft, robbery, shoplifting, auto theft, vandalism), and drug-related offenses (e.g., manufacturing or dealing drugs, driving under the influence of drugs; Anderberg et al., 2022; Tiberg et al., 2022). In general, criminality and drug abuse share common risk factors. For instance, both criminality and drug use are higher in neighbourhoods higher in social exclusion, poverty, and segregation (Anderberg et al., 2022; Li et al., 2020; Tiberg et al., 2022). Additionally, low school attendance and poor academic outcomes are related to increased risk of criminal engagement and drug use among young adults (Anderberg et al., 2022; Li et al., 2020; Tiberg et al., 2022). In the bargain, there is also compelling evidence stipulating that a childhood rife with family conflict, criminality, and drug abuse among parents and/or siblings often leads to violent crime and drug use among young people (Anderberg et al., 2022; Hechanova et al., 2018; Liu et al., 2021; Tiberg et al., 2022). Furthermore, Tiberg et al. (2022) have suggested that individual risk factors, such as sensation-seeking, poor self-control, and externalising behaviours, contribute to later criminality and drug abuse among young people.

Karriker-Jaffe et al. (2018) have stated that older adults are at higher risk of incurring severe consequences for drug abuse. In other words, various psychosocial and physiological factors make older adults more vulnerable to the impact of drug use. For instance, the psychosocial impact of drug use can include job termination, social isolation, and social role change,

whereas the physiological impact of drug use can include increased permeability of the blood-brain barrier, decreased lean body mass and total body water weight, increased nervous system sensitivity, and decreased liver drug metabolism (Karriker-Jaffe et al., 2018; Scherer et al., 2020; Szalavitz et al., 2021; Votaw et al., 2019). Furthermore, a study evaluating the role of drug use among older adults has shown that those who use drugs have an increased risk of violence toward their spouse or family members (Karriker-Jaffe et al., 2018; Scherer et al., 2020; Szalavitz et al., 2021; Votaw et al., 2019). Moreover, Szalavitz et al. (2021) and Scherer et al. (2020) have noted that drug-addicted elderly people are more prone to depression and suicidal ideation/attempts.

Ganson et al. (2022) discovered a significant, strong link between Performance-Enhancing Substances (PES) and criminal offending. The use of Anabolic-Androgenic Steroid (AAS), for example, is associated with aggressive tendencies and interpersonal violence, such as physical fighting, dating violence, and sexual violence (Ganson et al., 2022). In general, the use of AAS may result in brain structure changes, particularly in the area of the brain associated with the regulation of impulse control and emotion, causing increased anger and impaired functioning (Ganson et al., 2022; Ibrahim et al., 2020). Eventually, this could increase an individual's predisposition for violent offending (Ganson et al., 2022; Ibrahim et al., 2020). Empirical evidence obtained from global reports indicated that drug use has increased in Arabic-speaking countries. Epidemiological studies conducted in Morocco by Sfindla et al.

(2021), for example, estimated drug use to range between 10% to 48% among male inmates, and 30% to 60% among female inmates. Sfindla et al. (2021) noted that the use of cannabis, opioids, and cocaine may lead to various psychiatric disorders. For instance, marijuana dependence may lead to attention deficit hyperactivity disorder (ADHD), while opioid use is associated with anxiety disorder (Kirk et al., 2019; Sutherland et al., 2021)

Mental health and psychiatric morbidity are higher among drug-dependent prisoners (Wimberly et al., 2018). Recent studies have unveiled that personality disorders, addiction, neurodevelopmental disorders, and mood disorders are commonly diagnosed among inmates with substance abuse disease (Bennett et al., 2018). Sfindla et al. (2021) have also found that inmates with drug dependency (i.e., tramadol, morphine, heroin, and codeine) suffer from major withdrawal symptoms while in prison. For instance, inmates experiencing opioid withdrawal show depression symptoms, low self-esteem, and social isolation preference. These inmates also demonstrated hostility, trait anxiety, incoherence, and impulsivity that attended with their withdrawal symptoms. In relation to drug use and criminality, a substantial number of scientific research articles have shown that depression is a risk factor for committing violent acts, whereas drug use additionally increases the risk of hostile behavior (Kirk, 2019; Wimberly et al., 2018). Some researchers have also suggested that individuals with hostile behavior often find themselves in difficult situations, eventually triggering drug use (Ganson et al., 2022; Sfindla et al., 2021; Heradstveit

et al., 2018). For example, Sfindla et al. (2021) noted that individuals with higher hostility levels find it difficult to abstain from drug use during stress.

Drug abuse causes the user to experience vivid sensory distortion and impaired coordination. Researchers note that stimulants activate the central nervous system, inducing nervousness, restlessness, anxiety, and increased aggressiveness among users. It ultimately contributes to crime, youth violence, and inner-city crises in general (Ikoh et al., 2019; Johnson et al., 2018). According to Ikoh et al. (2019) and Johnson et al. (2018), cannabis is perceived by users to produce euphoria and stimulates an enhanced enjoyment of sex, food, music, hobbies, and the arts. Comparatively, amphetamines and cocaine is perceived to elevate mood and enhance performance (Ikoh et al., 2019; Johnson et al., 2018). Likewise, barbiturates, opiates and tranquilizers are perceived to diminish physical and psychic discomfort (Ikoh et al., 2019; Johnson et al., 2018). Drug use implicitly perpetuates violence and other illicit activities, such as burglary, pickpocketing, and robbery in order to acquire money to sustain the drug habit (Ikoh et al., 2019; Johnson et al., 2018).

Also, individuals who engaged in antisocial behavior prior to age 12 are at high risk of developing persistent criminal offending across the lifespan (Tharshini et al., 2021). Previous research shows that the childhood externalization of problems, such as conduct problems, deviance, and hyperactivity are significant precursors to drug use during adolescence (Bennett et al., 2018; Hechanova et al., 2018; Sfindla

et al., 2021). A Swedish survey conducted among 687 parents found that parents of an adolescent with substance abuse disease are at high risk of falling victim to property crime (Johnson et al., 2018). The parents participating in the survey indicated that the crimes were perpetrated by their own children for the sake of buying drugs (Johnson et al., 2018). The findings from the Swedish survey show that the child's life situation and drug addiction severity have a significant impact on the extent to which their parent's lives are negatively affected (Johnson et al., 2018). Johnson et al. (2018) have also disclosed that risk factors, such as current mental health problems, daily drug consumption, and repeated stints of drug treatment are linked to negative parental experiences.

Data accumulated by Johnson et al. (2018) show that young adults with substance abuse disease often cause stress and worry for family members, particularly when they live with their parents. Some common problems caused by these individuals include: (i) blackmailing or intimidating their parents to obtain money for purchasing drugs or settling drug-related debts; (ii) stealing money or valuable items from their parent's home; (iii) damaging property while arguing with parents; and (iv) child-to-parent violence (Johnson et al., 2018). Researchers also concur that individuals with substance abuse disease are often criminally active and struggle with impulse control (Svensson et al., 2019; Tharshini et al., 2021a; Tharshini et al., 2021b). For instance, benzodiazepines and central nervous system stimulant drugs can evoke aggression among users. Thus, in the family context, drug use can become

the central point of a conflict between parents and children, and this can engender violence and aggression (Svensson et al., 2019; Tharshini et al., 2021b). Similarly, Johnson et al. (2018) have uncovered some interesting facets of the parent-child dynamic in the context of victimology research. Johnson's et al. (2018) study, for example, shows that young adults with drug problems commonly expose their family members to property crime. Furthermore, 60% of parents reported that their children had stolen valuable belongings at least five times. One in 10 parents had been victims of property crime during the past year (Svensson et al., 2019). In theoretical terms, this situation aligns with the routine activity theory, particularly related to the "presence of motivation" criterion (high drug consumption cannot be funded solely by legal income, thus stealing from parents becomes an easily available option, especially for those with severe substance abuse disease (Svensson et al., 2019; Tharshini et al., 2021b).

Conclusion

In sum, the present review adds to the growing body of knowledge in the field of crime-related studies. It improves our understanding of how drug dependency increases the risk of an individual engaging in criminal activities. Although the aim of this study was academic, the literature review has led to the identification how different drugs types engender different patterns of criminal offending. Through this review, it is apparent that individuals with poly-drug consumption have a higher likelihood of engaging in diverse offense types. Thus,

the key indicators of drug use and criminality should be explored in greater detail, particularly when the offense is disaggregated by types of crime. Moreover, there is a need to improve our understanding of the association between distinct drug use types and various crime categories to circumvent naïve assumptions about drug-using offenders. Moreover, by using the theoretical framework of control theory, there is an obligation to uncover how drug dependency during adolescence contributes to criminality in early adulthood. In doing so, the researchers and policymakers would be better equipped methodologically to deal with issues associated with crime and drug abuse.

Conflict of Interest

The authors declare no conflict of interest with respect to the research, authorship, and/or publication of this article.

References

- Alamdarloo, G.H., Khorasani, S.M., Najafi, M., Jabbari, F.S., & Shojaee, S. (2019). The effect of Cognitive-Behavioral Therapy on depression, anxiety, and stress level in Iranian males with addiction. *SAGE Open*, 1-7. <https://doi.org/10.1177/2158244018824466>
- Anderberg, M., Dahlberg, M., & Wennberg, P. (2022). Criminality among young people with substance use problem in Sweden: A one-year follow-up study. *Journal of Drug Issues*, 1-15. <https://doi.org/10.1177/00220426211046596>
- Bennett, T., & Holloway, K. (2018). Drug and alcohol-related crime among university students. *International Journal of Offender Therapy and Comparative Criminology*, 62,1-21. <https://doi.org/10.1177/0306624X18769601>
- Felson, R.B., Osgood, D.W., Cundiff, P.R., & Wiernik, C. (2018). Life in the fast lane: Drugs, hedonistic lifestyles, and economic crime. *Crime & Delinquency*, 65,1-27. <https://doi.org/10.1177/001128718800282>
- Ganson, K.T., Jackson, D.B., Testa, A., & Nagata, J.M. (2022). Performance-enhancing substance use and intimate partner violence: A prospective cohort study. *Journal of Interpersonal Violence*, 1-22. [10.1177/08862605211073097](https://doi.org/10.1177/08862605211073097)
- Hechanova, M.R.M., Alianan, A.S., Calleja, M.T., Melgar, I.E., Acosta, A., Villansanta, A., Bunagan, K., Yusay, C., Ang, A., Flores, J., Canoy, N., Espina, E., Gomez, G.A., Hinckley, E.S., Tuliao, A.P., & Cue, M.P. (2018). The development of a community-based drug intervention for Filipino drug users. *Journal of Pacific Rim Psychology*, 12, 1-10. <https://doi.org/10.1017/prp.2017.23>
- Heradstveit, O., Skogen, J.C., Boe, T., Hetland, J., Pedersen, M.U., & Hysing, M. (2018). Prospective associations between childhood externalising and internalising problems and adolescent alcohol and drug use: The bergen child study. *Nordic Studies on Alcohol and Drugs*, 35, 357-371. <https://doi.org/10.1177/1455072518789852>

- Ibrahim, F., Mohd Hoesni, S., Zakaria, E., Nen, S., Sarnon, N., Alavi, K., Subhi, N., & Mohamad, M.S. (2020). Drug abuse and the involvement of prisoners in street crimes. *International Journal of Psychosocial Rehabilitation*, 24, 4508-4516.
10.37200/IJPR/V24I4/PR201553
- Ibrahim, F., Zakaria, E., Nen, S., Sarnon, N., Hassan, N., & Mursidam, S.M. (2020). Social pressure among former drug addicts after discharged from drug rehabilitation centre. *International Journal of Psychosocial Rehabilitation*, 24, 4517-4525.
10.37200/IJPR/V24I4/PR201554
- Ikoh, M.U., Smah, S.O., Okwanya, I., Clement, U.A., & Aposhi, Z.A. (2019). Factors affecting entry into drug abuse among youth in Lafia Metropolis: Implications on security. *SAGE Open*, 1-15.
<https://doi.org/10.1177/2158244018823428>
- Johnson, B., Richert, T., & Svensson, B. (2018). Parents as victims of property crime committed by their adult children with drug problems: Results from a self-report study. *International Review of Victimology*, 24, 329-346.
<https://doi.org/10.1177/0269758018773836>
- Karriker-Jaffe, K.J., Subbaraman, M.S., Greenfield, T.K., & Kerr, W.C. (2018). Contribution of alcohol and drug co-use to substance use problems: Data from a nationally representative sample of US adults who have never been to treatment. *Nordic Studies on Alcohol and Drugs*, 35, 428-442.
10.1177/1455072518806122
- Kirk, D.S. (2019). The association between residential relocation and re-incarceration among drug-dependent former prisoners. *Addiction*, 114(8), 1389-1395.
<https://doi.org/10.1111/add.14617>
- Kuettel, B.T. (2021). Examining the coevolution of drug use variety and different types of offending frequency among justice-involved adolescents. *Journal of Drug Issues*, 51, 1-19.
<https://doi.org/10.1177/00220426211002261>
- Li, S.D., Zhao, R., & Zhang, H. (2020). Examining the link between drug use disorders and crime among Chinese drug users receiving mandatory detoxification and treatment. *Crime & Delinquency*, 67, 1-21.
<https://doi.org/10.1177/0011128720939511>
- Liu, L., & Visher, C.A. (2021). The roles of family, community, and services in the prevention of illicit drug use: Findings from a sample of released prisoners. *Journal of Drug Issues*, 51, 354-371.
<https://doi.org/10.1177/0022042620984770>
- Scherer, J.N., Schuch, J.B., Rocha, M.R., Assuncao, V., Silvestrin, R.B., Roglio, V.S., Limberger, R.P., Sousa, T.R.V., & Pechansky, F. (2020). Drug use and driving behaviors among drivers with and without alcohol-related infractions. *Trends in Psychiatry and Psychotherapy*, 42(3), 230-238. doi: 10.1590/2237-6089-2019-0034
- Sfendla, A., Martinsson, B., Filipovic, Y., Senhaji, M., & Kerekes, N. (2021). Psychological distress in a sample of

- Moroccan prisoners with drug-dependence. *International Journal of Offender Therapy and Comparative Criminology*, 1-16. <https://doi.org/10.1177/0306624X211010286>
- Sibley, A.L., Schalkoff, C.A., Richard, E.L., Piscalko, H.M., Brook, D.L., Lancaster, K.E., Miller, W.C., & Go, V.F. (2020). "I was raised in addiction": Construction of the self and the other in discourses of addiction and recovery. *Qualitative Health Research*, 30, 2278-2290. <https://doi.org/10.1177/1049732320948829>
- Sutherland, R., Weatherburn, D., & Degenhardt, L. (2021). A trial of criminal infringement notices as an alternative to criminal penalties for illicit drug offences in New South Wales, Australia: Estimated savings. *Drug and Alcohol Review*, 40(1), 93-97. <https://doi.org/10.1111/dar.13142>
- Svensson, B., Richert, T., & Johnson, B. (2019). Parent's experiences of abuse by their adults' children with drug problems. *Nordic Studies on Alcohol and Drugs*, 37, 69-85. <https://doi.org/10.1177/1455072519883464>
- Szalavitz, M., Rigg, K.K., & Wakeman, S.E. (2021). Drug dependence is not addiction-and it matters. *Annals of Medicine*, 53(1), 1989-1992. doi: 10.1080/07853890.2021.1995623
- Tharshini, N.K., Ibrahim, F., Kamaluddin, M.R., Rathakrishnan, B., & Che Mohd Nasir, N. (2021a). The link between individual personality traits and criminality: A systematic review. *International Journal of Environmental Research and Public Health*, 18, 8663. 10.3390/ijerph18168663
- Tharshini, N.K., Ibrahim, F., Mohamad, M.S., & Zakaria, E. (2021b). The influence of self-concept, sense of community and social support towards social integration among young offenders in Malaysia. *Kajian Malaysia*, 39, 117-140. <https://doi.org/10.21315/km2021.39.1.6>
- Tiberg, F., & Nordgren, J. (2022). Ordinary people, criminals, addicts and recreational users: Swedish court of law descriptions of persons sentenced for online drug purchase. *Nordic Studies on Alcohol and Drugs*, 1-15. 10.1177/14550725221079524
- Votaw, V.R., Geyer, R., Rieselbach, M.M., & McHugh, R.K. (2019). The epidemiology of benzodiazepine misuse: A systematic review. *Drug and Alcohol Dependence*, 200, 95-114. doi: 10.1016/j.drugalcdep.2019.02.033
- Wimberly, A.S., Hyatt, J.M., & McKay, J.R. (2018). Effect of continuing care for people with cocaine dependence on criminal justice sentences. *Behavioral Sciences & the Law*, 36(1), 116-129. <https://doi.org/10.1002/bsl.2330>
- Yunos, N., Ibrahim, F., Zakaria, E., Wan Sulaiman, W.S., Hassan, N., Kamaluddin, M.R., & Tharshini, N.K. (2019). Relationship between drug craving and high-risk situations for relapse among inmates with substance abuse issues. *International Journal of Current Research and Review*, 13, 40-43. <http://dx.doi.org/10.31782/IJCRR.2021.131819>