

Psychosocial Determinants of Substance Use: South Asia vs. Europe

Amritha Varshini¹, Surej Unnikrishnan², Shobitha SV Singh³,
Jibini Mariyam Binu⁴ & Crystal Sunshine Dourjere⁵

Abstract : This systematic review explores the psychological and socio-demographic determinants of psychoactive substance use in South Asian and European countries in the last decade (2014-24). It synthesizes 42 eligible articles identified from databases namely Pubmed, Pubmed Central, BMC Public Health, Google Scholar and Science Direct, following strict inclusion and exclusion criteria. The findings are categorized into five themes: children and adolescents, college students, clinical populations, general populations, and other populations including prisoners, healthcare workers, and Intimate Partner Violence (IPV) victims. The key similarities observed are the effects of peer influence and socio-economic factors among all the populations. Differences in psychological traits appeared in regional emphasis. South Asian studies highlighted family structures, socio-economic challenges, and digital technology use, while European studies emphasized psychological traits and public health policies. Substance use patterns also varied, with alcohol and cannabis dominating in South Asia, and heroin in European studies. The study identifies research gaps, in terms of South Asian working populations. Areas for future directions include culturally nuanced interventions and stigma reduction through policy-driven frameworks. These results underscore the importance of culturally tailored strategies for targeting determinants of substance use across different populations.

Keywords: determinants, psychoactive substance use, psychosocial, South Asia, Europe

Throughout human history, psychoactive substances—which are characterised by their ability to affect the central nervous system (CNS)—have been used for spiritual, recreational, and medical purposes in many cultures. Through their interactions with neurotransmitter systems, these substances change perception, mood, and behaviour, with potentially harmful as well as therapeutic effects. Stimulants, depressants, opioids, hallucinogens, cannabinoids, dissociatives, and inhalants are all categorized into different groups, each with its own pharmacological mechanisms and social ramifications (Koob & Volkow, 2016).

The ICD-10 and DSM-5 criteria

The ICD-10 classifies substance-related disorders under "Mental and Behavioural Disorders due to Psychoactive Substance Use" (F10-F19). The classification emphasizes both the physical and mental harm caused by substance use and categorise disorders

based on the specific substance involved (e.g., alcohol, opioids, cannabis) as well as the clinical state, which may include acute intoxication, harmful use, dependence syndrome, withdrawal, substance-induced psychosis, and other conditions. Diagnosis is based on meeting specific criteria within a 12-month period (World Health Organisation, 2016).

DSM-5 categorizes disorders as 'Substance-Related and Addictive Disorders,' and these are divided between substance use disorders and substance-induced disorders, which can include withdrawal or intoxication. A diagnosis of substance use disorder (SUD) is based on 11 criteria, which are broadly categorized into impaired control, social impairment, risky use, and pharmacological dependence (tolerance/withdrawal). At least two of these 11 criteria must be met within 12 months for a diagnosis.

¹Student, Department of Psychology, Indian Institute of Psychology and Research, Bengaluru

²Assistant Professor, Department of Psychology, Indian Institute of Psychology and Research, Bengaluru

^{3,5}Student, Department of Psychology, Indian Institute of Psychology and Research, Bengaluru

⁴Corresponding Author: vramritha.varshini@gmail.com

Psychoactive Substance Use in South Asia

South Asia includes Sri Lanka, India, Afghanistan, Bangladesh, Pakistan, Bhutan, Maldives and Nepal. Cultural, socioeconomic, and legal factors drive the patterns of substance use in this region. There is a unique pattern with the prevalence of plant-based drugs, such as cannabis, which are deeply embedded in the cultures and traditions of the regions (Ambekar et al., 2005). For example, marijuana use is closely linked to cultural rituals and social activities. For India and Nepal, cannabis is often part of Holi (a Hindu festival celebrated in March in honour of Lord Krishna) and Shivaratri (a Hindu festival celebrated in honour of Lord Shiva) celebrations. Alcohol use may be highly institutionalized during tribal festivals, particularly in Bhutan and a large percentage of Indian states (Ambekar et al., 2005).

In Bangladesh, the rising use of methamphetamine tablets, known as "yaba" or "crazy medicine", is a growing concern due to severe health and societal issues caused by its use, particularly among youth (Fattah, 2012). Similarly, in India, increasing psychoactive substance use was reported among female students aged between 18-25 years, which indicated that intervention programs should be tailor-made for young women (Jaswal et al., 2023). In Nepal, the change from opium to heroin use has been observed, and youth are increasingly using drugs. This is a concerning trend and requires timely attention (Ambekar et al., 2005). Similar to Nepal, Sri Lanka is in transition from opium to heroin addiction, with alarming rates of heroin abuse (Ambekar et al., 2005).

Psychoactive Substance Use in Europe

According to the European Drug Report (European Monitoring Centre for Drugs and Drug Addiction, 2024), there is high availability of all commonly used illicit substances due to supply of the same in the European Union. The Netherlands known for its liberal attitude towards substance use, has high prevalence of cannabis and other drug use (van Laar et al., 2011). The UK has a significant drug problem, with high rates of opioid and cocaine use, particularly in urban areas like London (Home Office, 2020). Germany is known for its vibrant nightlife, which contributes to higher rates of

substance use, particularly among young people (Bundesministerium für Gesundheit, 2025).

Several European countries share cultural similarities that contribute to higher substance use rates. Liberal attitudes towards drug use, as seen in the Netherlands, Portugal, and Switzerland, encourage more open consumption (Hedrich, 2004). Additionally, the social and cultural dynamics of nightlife in countries such as Spain, Italy, and Germany have been linked to increased patterns of substance use (Measham & Brain, 2005). Furthermore, in some regions, drug use is associated with youth rebellion and self-expression, reinforcing its presence in social settings (Parker, 1999).

Existing findings as detailed above indicate considerable differences in patterns of substance use among South Asian and European nations, driven by cultural attitudes, socioeconomic determinants, and government policy. European countries have higher consumption due to permissive social attitudes and greater acceptance, whereas South Asian nations have more rigid control and cultural prohibition that impact the pattern of use. These differences emphasize the necessity of exploring the psychological and socio-demographic factors that contribute to substance use among both sets of nations.

Rationale

Cross-cultural research plays a vital role in advancing an empirical understanding of human behaviour by systematically examining the influence of cultural contexts on behaviour, focusing on variations across diverse societies (Matsumoto & Juang, 2016; Papayiannis & Anastassiou-Hadjicharalambous, 2011). The fundamental purpose of such research is to determine whether particular behaviours are universal human traits or culturally bound phenomena (Ember, 2009).

Individuals across all social groups based on gender, race, ethnicity, sexual orientation, caste, class, and religion are affected by addiction. This makes it crucial for addiction professionals to develop culturally responsive behaviours, strategies, and techniques to

assist affected populations. By doing so, they can foster an inclusive and supportive environment for individuals potentially seeking treatment (Jones & Branco, 2021).

The Diagnostic and Statistical Manual of Mental Disorders, 5th edition, text revision (DSM-5-TR) also emphasizes the importance of addressing culture-related diagnostic issues in mental health assessments, including substance use disorders (American Psychiatric Association, 2022). These considerations include but are not limited to cultural beliefs about the causes or triggers of disorders, cultural norms impacting the perception of pathology and factors influencing differential prevalence rates across demographic groups.

The principle of multicultural competence is also applicable here that enables mental health professionals to empower individuals from different cultural and ethnic backgrounds (Sue, 2001). This also includes understanding drug cultures that are present in different nations (Substance Abuse and Mental Health Services Administration, 2024).

Blum's (1974) seminal work, *Society and Drugs: Social and Cultural Observations*, stands out as a significant contribution to understanding the factors influencing drug use patterns across cultures. Drawing on data from over 247 cultures documented in the Human Relations Area Files (HRAF), Blum analyzed the similarities and differences in drug use, associated outcomes, and cultural beliefs. Notable findings from this study include the absence of higher drug use among females for any substance examined, the prominence of social factors as primary motivators for use, and a general upward trend in drug use over time, excluding stimulants and opium. This study serves as a benchmark for the authors of the present study to conduct a cross-cultural comparison between South Asian and European countries regarding the psychological and social determinants of psychoactive drug use.

Understanding nuances that differ from culture to culture becomes important, hence, this systematic

review aims to investigate the cross-cultural similarities and differences between South Asian and European countries, with a special focus on the psychological and socio-demographic determinants of psychoactive drug use. The authors aim to examine literature published between 2014 and 2024 in select European and South Asian countries, with the objective of conducting a cross-cultural comparison.

Methodology

The present study's findings are based on themes derived from the selected papers. The focus will be on studies published within the last decade, from 2014 to 2024. The search methods included perusing various databases namely Pubmed, Pubmed Central, BMC Public Health, Google Scholar and Science Direct. The following terms were used: psychoactive substance use and determinants, drug use and mental health, drug use risk factors, etiology drug use, psychosocial factors and substance use, psychoactive substance use Europe, psychoactive substance use Asia. The last two keywords were used to help narrow down the search. Investigators also manually searched and found papers from the reference section of relevant articles.

The following were the kind of studies included:

- Research studies employing quantitative, qualitative, or mixed methods from South Asian and European countries.
- Studies that investigate the psychological and socio-demographic determinants of psychoactive substance use.
- Studies involving participants of all ages, social groups, and genders.
- Studies analyzing both legal and illegal substances.

The following were excluded:

- Studies that focused on psychedelics and novel psychoactive substances (NPS).
- Studies that concentrated solely on psychotropic drug usage.
- Studies that examined genetic and neurobiological determinants.
- Any studies published in 2013 or earlier.

- Studies that focused solely on medication trials or pharmacological interventions for substance use.
- Cross-cultural studies.
- Studies that focused solely on the prevalence of substance use.
- Studies that examined risk factors for relapse.
- Studies that investigated pandemic-related determinants.
- Studies that focused on immigrant populations.
- Studies that were not available in English.

Study selection

Titles and abstracts were initially reviewed for eligibility. If the inclusion criteria could be confirmed from the abstract alone, the full-text article was retrieved. Articles that did not meet the eligibility criteria based on the abstract were excluded (see Figure 1).

Data extraction

A systematic data extraction process was used to retrieve relevant information from each study in a systematic manner. Important information, such as Author/Year, Methodology, and Major Findings, was extracted and entered into a preformatted Excel spreadsheet. The systematic format enabled comparative analysis across studies to identify patterns and differences in determinants of substance use between South Asian and European populations.

The extracted data was subjected to a systematic analysis wherein common themes were determined across studies and methodological variations were examined to determine the validity and reliability of the results. Data were also grouped according to socio-demographic and psychological determinants, allowing for a thorough cross-cultural comparison. This ensured a comprehensive understanding of the psychological and socio-demographic determinants of psychoactive substance use in both regions.

Results

The electronic database search initially yielded 309 studies. After applying the inclusion criteria, 99 studies

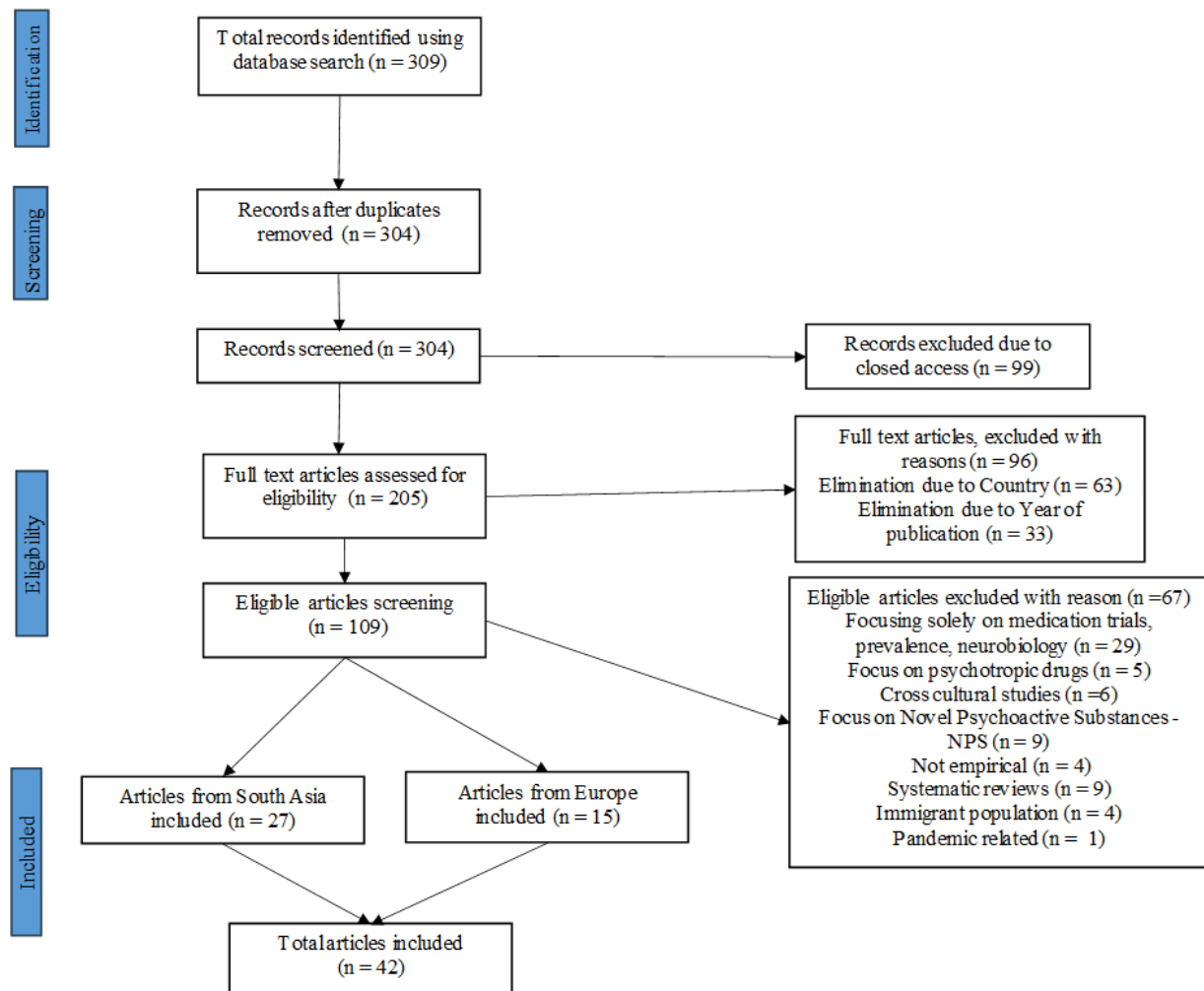
were excluded due to closed access, and 5 duplicate papers were removed. Further screening resulted in the elimination of 63 studies based on country criteria and 33 studies were excluded due to publication year restrictions. Additional exclusions included 9 systematic reviews, 6 cross-cultural studies, 4 non-empirical papers, 9 studies focusing on novel psychoactive substances (NPS), 4 studies on immigrant populations, 5 studies focusing solely on psychotropic drugs, 29 studies concentrating solely on medication trials, prevalence, or neurobiological determinants and 1 study focusing on pandemic related determinants. Thus, a total of 67 studies were excluded here. Papers falling under additional exclusion criteria, such as non-English language studies, had already been filtered out during other exclusion processes. However, the investigators deemed it important to explicitly state these criteria in the exclusion framework.

As a result, 27 articles were identified from South Asia and 15 were identified from Europe, tallying up to 42 articles in total.

We organized our findings into 5 themes: Children and Adolescents, College Students, Clinical populations, General population, and Other Populations.

Discussion

The discussion explores the findings through five key themes based on study populations: (1) *Children and Adolescents*, (2) *College Students*, (3) *Clinical Populations* (including individuals in rehabilitation, mental health, and de-addiction centers), (4) *General Population*, and (5) *Other Populations* (such as working professionals, healthcare workers, IPV victims, and prisoners). Each theme is divided into two sections, first exploring the similarities in substance use determinants across both regions, followed by an analysis of the key differences within each population group.

Figure 1*Visual Representation of the Screening and Selection Process for Included Studies*

Children and Adolescent population

Similarities

Many studies across South Asian and European regions have found consistent findings when it comes to the socio-demographic characteristics that act as determinants of psychoactive substance use among this population. Gender was a significant risk factor in both the regions, as males were more likely to use psychoactive substances (Bhandari, Paudel, et al., 2021; König et al., 2018). Substance use was found to be influenced significantly by both peer and family influences transcending cultures. Adolescents who used psychoactive substances had a higher probability of doing similar things (Fuentes et al., 2020; Wangdi & Jamtsho, 2019;). Academic performance and family structure contributed to affecting the amount of substance use. Poor academic self-perception and less family impact on personal life were identified as shared risk variables in both South Asian and European research (Mazur et al., 2016; Moonajilin et al., 2021). Furthermore, parental supervision, particularly for homework and free time, was

consistently associated with lower substance use, emphasizing the preventive function of parental participation (König et al., 2018; Sojib et al., 2024).

Differences

At the same time, there were significant disparities in the characteristics that influence substance use among South Asian and European adolescents. In South Asia, socioeconomic and family-related characteristics such as education level, family structure (For example: Joint families), and the presence of step-parents were found to have a substantial impact on substance use (Islam et al., 2014; Sojib et al., 2024). Unlike in South Asian studies, European studies focused more on self-esteem, anxiety, parent-child conflict, as primary predictive factors of early or age-related changes in such behaviour (Mazur et al., 2016; van Cleemput, 2018). In European contexts, a close relationship with parents, especially fathers, was associated with less substance use, but in South Asian contexts, characteristics of family loss and street life duration were more salient (Cakici et al., 2018; Fuentes et al., 2020). Digital technology such as smartphone use was reported as an important risk factor for substance use by South Asian studies (Moonajilin et al., 2021). However, it received less attention in European reports. Such differences imply that cultural variations in family dynamics, emotional health, and technological engagements may affect the children and adolescent substance use patterns differently in these two regions.

College Student population

Similarities

The identified studies shared a consistent emphasis on stress which emerged as a primary risk factor (Kokiwar et al., 2019; Saxena et al., 2019), highlighting the role of academic pressure and mental health challenges. Another very common determinant was peer influence (Kamaladshan et al., 2018; Panthee et al., 2017), where the main driving force behind substance use was curiosity and socialization pressures. In addition to those, familial factors, mainly positive family history of substance use, were repeatedly shown to increase

prevalence. (Goel et al., 2015; Patel et al., 2016). Across all studies, uniform emphasis was placed on preventive interventions, whether through mental health promotion (Jaswal et al., 2023) or structured substance-use education (Brar et al., 2020).

Differences

Although the studies revealed similar risk factors, the focus of the studies was on the specific populations and determinants, which was a significant difference. For instance, Thennakoon et al. (2024) linked personality traits, such as openness and extraversion, uniquely to substance use, whereas Kamaladshan et al. (2018) focused on cultural and social media influences. Methodological variations were also observed with cross-sectional designs being more common compared to longitudinal designs (Gajda et al., 2021). Further, although most papers emphasized peer influence as the major determinant of non-smoking behaviour (Kamaladshan et al., 2018; Panthee et al., 2017;), some focused on policy support, such as smoking bans, as a determinant of nonsmoking behaviour - a fundamentally more policy-oriented approach (Brar et al., 2020).

Clinical population

Similarities

The continuous use of multiple addictive substances is a problem that transcends across boundaries of countries (Bhandari, Khatiwada, et al., 2021). Sri Lanka, India, Belgium, and Nepal showed a high prevalence of substance use disorders among populations seeking treatment in these areas (König et al., 2018; Mazur et al., 2016). Studies in these countries indicate that the most frequently abused substances include tobacco and alcohol, especially among those with mental illness (Bhandari, Khatiwada, et al., 2021). Alcohol, cannabis, and opioid abuse have been documented in Sri Lanka (Mazur et al., 2016). According to evidence, anxiety and depression are the common symptoms found in the substance users (Moonajilin et al., 2021). Patients who undergo rehabilitation in Nepal experience high levels of

psychosocial stress (König et al., 2018). In Belgium, general practitioners have played a great role in providing psychological support and empathy to patients with addiction problems (Fuentes et al., 2020). Research on substance use suggests that social and economic factors contribute to the problem. Influences such as peer pressure and family conflicts play a significant role in substance use across various countries (Islam et al., 2014; Moonajilin et al., 2021). Therefore, the problem is interrelated with mental health issues, and various socioeconomic factors.

Differences

Significant gaps are present in the characteristics of the study populations and the substances investigated in the two regions. For example, studies conducted in Belgium targeted patients with illicit substance use disorder in general practice (Richelle et al., 2024), whereas studies conducted in Sri Lanka and India targeted populations that sought services in organized health and rehabilitation centers (van Cleemput, 2018). In general, anxiety and depression remained key mental health determinants among the countries reviewed. A study in Nepal, however, focused on rehabilitating individuals' mental health condition; whereas, the Belgium based studies examined a patient's expectations of primary care services offered (Cakici et al., 2018; Richelle et al., 2024). Other regional variations could be observed regarding the abused substances. While alcohol, cannabis, and opioids were widely reported in Indian and Sri Lankan populations (Bhandari, Khatiwada, et al., 2021; König et al., 2018), heroin remained the commonly used substance among Belgium people (Richelle et al., 2024). Such variations appear due to both differences in study emphases and national contexts where specific patterns of substance use emerge.

General Population

Similarities

The studies conducted in Europe and South Asia emphasized the significance of socioeconomic variables in contributing to the use of psychoactive substances. In South Asia, socioeconomic factors such

as unemployment, poverty, and low educational attainment were frequently associated with increased substance use (Raphael et al., 2017). Low socioeconomic position was a significant predictor of substance use in Europe (Charitonidi et al., 2016; Ilhan et al., 2016). The prevalence of drug use among young people was greatly influenced by factors such as poorer income, substandard living conditions, and restricted access to education (Charitonidi et al., 2016; Ilhan et al., 2016). In both regions, specific substances were preferred including alcohol, tobacco, and cannabis (Charitonidi et al., 2016; Darshana et al., 2022; Ilhan et al., 2016; Wangdi & Jamtsho, 2019). Youth and teenagers were viewed as the most susceptible demographic for substance use in both regions. (Bhandari, Khatiwada, et al., 2021; Charitonidi et al., 2016).

Differences

In South Asian countries, there are legal prohibitions on illegal drugs, alcohol and tobacco. Despite that, they are more culturally embedded and socially acceptable (Bhandari, Khatiwada, et al., 2021; Darshana et al., 2022). Although drug use is common throughout Europe, there is the factor of social criticism of usage, while public health campaigns and drug prevention measures are given attention more frequently (Charitonidi et al., 2016). It was found that the reach of drug prevention initiatives is constricted by the absence of availability of public health infrastructure in many South Asian countries (Bhandari, Khatiwada, et al., 2021; Wangdi & Jamtsho, 2019). Europe often has more coordinated and effective harm-reduction plans and public health initiatives, seen particularly among young men (Charitonidi et al., 2016).

Other populations

Prison population

In both studies, high prevalence of psychoactive substance use among male prisoners was reported in prisons where inmates relied on substances such as alcohol, cannabis, and opioids to cope with stress and isolation and peer pressure. (Caravaca-Sánchez et al., 2015; Jat et al., 2019). However, differences were noted

in reasons for substance use. However, differences were noted in reasons for substance use. In the South Asian prison, the forces driving substance use were said to be more peer pressure based and the brutality of life in prison while in the European prison, an emphasis on pre-existing mental health conditions and past offending behaviours were more pronounced (Caravaca-Sánchez et al., 2015; Jat et al., 2019).

Working populations

Psychoactive drug use has been strongly linked to an increased risk of work-related issues, while low well-being has been identified as a key factor making individuals more susceptible to sickness absences related to substance use (Lambrechts et al., 2019). In a similar manner, daily smoking and medical drugs have emerged as strong predictors of sickness absences that were frequent and prolonged, especially for men (Lund et al., 2019). Binge drinking, snus use, illegal drugs, and polydrug use did not have a strong association with sickness absences (Lund et al., 2019). For this population, none of the studies included came from South Asian countries.

Intimate Partner Violence (IPV) victims

Women who experience the emotional trauma of intimate partner violence turn to drugs as a coping mechanism. Psychotropic medications and alcohol serve as numbing agents for the psychological and bodily suffering caused by abuse (Crespo et al., 2017). Because IPV and substance abuse are stigmatized, victims frequently feel alone and are unable to ask for support or assistance from others (Crespo et al., 2017). None of the studies reviewed for this population were situated within the South Asian context.

Healthcare workers

In order to deal with the physical and emotional exhaustion brought on by erratic work schedules and stressful work conditions, healthcare professionals turn to drugs (Cousin et al., 2022). These employees frequently feel embarrassed about their substance use, even when they are professionals, which discourage them from getting treatment or being candid about their

problems (Cousin et al., 2022). As with working population and IPV victims, research on healthcare workers in South Asia is scarce, leaving a gap in understanding how various factors may intersect to influence substance use.

Conclusion

This study aimed to explore literature on psychological and social determinants of psychoactive substance use that spans over 10 years (2014 to 2024) in European countries and south Asian countries and offer a cross-cultural comparison. The systematic review showed that 42 relevant studies could be grouped together based on five themes: general populations, clinical populations, college students, children and adolescents, and other populations.

Results show cultural differences between the two regions — European studies assessed the psychological characteristics and public health policies while South Asian studies focussed on the family structures and socio-economic challenges. The findings also looked at similarities between the determinants as well, namely peer influence and socio-economic factors. Significant gaps were identified in the literature, particularly concerning the working population, healthcare professionals, and victims of intimate partner violence (IPV) in South Asia. The lack of research on these groups limits the development of targeted interventions and culturally appropriate support. More region-specific studies are needed to better understand their unique vulnerabilities and guide effective responses.

The findings suggest that rising smartphone usage in South Asia is contributing to greater digital engagement, coinciding with an increase in substance use that calls for targeted interventions. Meanwhile, this aspect receives less focus in Europe, where proactive prevention strategies could be more effectively utilized. Cultural embeddedness shapes the behaviours of substance use significantly. South Asia looks upon family structures for intervention, while Europe focuses more on the individual psychological aspects like self-esteem and emotional resilience.

Reducing stigma continues to be a shared concern as it often stops people from receiving treatment. However, the culturally sensitive and community-driven approaches in South Asia and the policy-driven frameworks in Europe could significantly strengthen stigma reduction efforts.

Future research should focus on cultural nuances in digital risk factors, the development of non-Western theoretical models of substance use, and mixed methods approaches to discover deeper insights into underrepresented populations. The steps are to start transitional programs for marginalized populations like prisoners and IPV survivors, to tap into the family structure, for interventions in South Asia, and to improve harm-reduction policies in Europe. We recommend that integrating these tailored strategies contributes to the comprehensive understanding of determinants of substance use and opens ways toward culturally relevant and effective interventions.

References

- Ambekar, A., Lewis, G., Rao, S., & Sethi, H. (2005). *South Asia regional profile*. UNODC.
- American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). <https://doi.org/10.1176/appi.books.9780890425787>
- Bhandari, T. R., Khatiwada, B., Rajbhandari, B., Bestman, A., Mistry, S. K., Rayamajhee, B., Rawal, L. B., & Yadav, U. N. (2021). A qualitative study to understand drivers of psychoactive substance use among Nepalese youth. *PLoS ONE*, 16(11), Article e0259021. <https://doi.org/10.1371/journal.pone.0259021>
- Bhandari, T. R., Paudel, G., Bestman, A., Thapa, T. B., Gwayali, C. P., Ghimire, B., Sharma, S., & Yadav, U. N. (2021). Use of psychoactive substance and its associated factors among school adolescents in Rupandehi district of Nepal. *Journal of Nepal Health Research Council*, 19(03), 474–480. <https://doi.org/10.33314/jnhrc.v19i3.3405>
- Blum, R. H. (1974). *Society and drugs: Social and cultural observations*. Jossey-Bass.
- Brar, M., Chaudhary, N., Ramakrishnan, T. S., & Randhawa, A. (2020). A study of prevalence of tobacco use and related factors among medical students as per the Global Health Professions Student Survey protocol. *International Journal of Research in Medical Sciences*, 8(6), 2243–2247. <https://doi.org/10.18203/2320-6012.ijrms20202275>
- Bundesministerium für Gesundheit. (2025). *Frequently asked questions on the Cannabis Act*. <https://www.bundesgesundheitsministerium.de/en/themen/cannabis/faq-cannabis-act.html>
- Cakici, M., Cakici, E., Ozsoy, I., Karaaziz, M., Beyazit, U., & Hancerli, S. (2018). The prevalence and risk factors of psychoactive substance use among secondary school students in Turkish Republic of Northern Cyprus. *Alpha Psychiatry*, 19(6), 586–593. <https://doi.org/10.5455/apd.293192>
- Caravaca-Sánchez, F., Romero, M. F., & Luna, A. (2015). Prevalence and predictors of psychoactive substance use among men in prisons. *Gaceta Sanitaria*, 29(5), 358–363. <https://doi.org/10.1016/j.gaceta.2015.06.005>
- Charitonidi, E., Studer, J., Gaume, J., Gmel, G., Daepfen, J., & Bertholet, N. (2016). Socioeconomic status and substance use among Swiss young men: A population-based cross-sectional study. *BMC Public Health*, 16(1), Article 333. <https://doi.org/10.1186/s12889-016-2949-5>
- Cousin, L., Roucoux, G., Petit, A. S., Baumann-Coblentz, L., Torrente, O. R., Cannafarina, A., Chassany, O., Duracinsky, M., & Carrieri, P. (2022). Perceived stigma, substance use and self-medication in night-shift healthcare workers: A qualitative study. *BMC Health Services Research*, 22(1), Article 698. <https://doi.org/10.1186/s12913-022-08018-x>

- Crespo, M., Soberón, C., Fernández-Lansac, V., & Gómez-Gutiérrez, M. (2017). Alcohol and psychotropic substance use in female Spanish victims of intimate partner violence. *Psicothema*, 2(29), 191–196. <https://doi.org/10.7334/psicothema2016.212>
- Darshana, N., Wijesinghe, C. J., & De Silva, P. V. (2022). Assessment of characteristics and exposure to vulnerable factors for drug use among male illicit drug users in Sri Lanka. *Indian Journal of Community Medicine*, 47(2), 285–291. https://doi.org/10.4103/ijcm.ijcm_712_21
- Ember, C. R. (2009). *Cross-cultural research methods*. Rowman Altamira.
- European Monitoring Centre for Drugs and Drug Addiction. (2024). *European drug report 2024: Trends and developments*. https://www.emcdda.europa.eu/publications/european-drug-report/2024_en
- Fattah, S. A. (2012). 'Yaba' addiction – A rising concern in Bangladesh. *Faridpur Medical College Journal*, 7(2), 50. <https://doi.org/10.3329/fmcj.v7i2.13496>
- Fuentes, M. C., Garcia, O. F., & Garcia, F. (2020). Protective and risk factors for adolescent substance use in Spain: Self-esteem and other indicators of personal well-being and ill-being. *Sustainability*, 12(15), Article 5962. <https://doi.org/10.3390/su12155962>
- Gajda, M., Sedlaczek, K., Szemik, S., & Kowalska, M. (2021). Determinants of alcohol consumption among medical students: Results from POLLEK cohort study. *International Journal of Environmental Research and Public Health*, 18(11), Article 5872. <https://doi.org/10.3390/ijerph18115872>
- Goel, N., Khandelwal, V., Pandya, K., & Kotwal, A. (2015). Alcohol and tobacco use among undergraduate and postgraduate medical students in India: A multicentric cross-sectional study. *Central Asian Journal of Global Health*, 4(1). <https://doi.org/10.5195/cajgh.2015.187>
- Haugland, S. H., Coombes, L., & Stea, T. H. (2019). Associations between parenting and substance use, meal pattern and food choices: A cross-sectional survey of 13,269 Norwegian adolescents. *Preventive Medicine Reports*, 14, Article 100862. <https://doi.org/10.1016/j.pmedr.2019.100862>
- Hedrich, D. (2004). *European report on drug consumption rooms*. European Monitoring Centre for Drugs and Drug Addiction.
- Home Office. (2020, December 9). *Drug misuse statistics*. GOV.UK. <https://www.gov.uk/government/collections/drug-misuse-declared>
- Ilhan, M. N., Arikan, Z., Kotan, Z., Tuncoglu, T., Pinarci, M., Tasdemir, A., Ay, B., & Kocak, N. (2015). Prevalence and socio-demographic determinants of tobacco, alcohol, substance use and drug misuse in general population in Turkey. *Nöro Psikiyatri Arşivi*, 53(3), 205–212. <https://doi.org/10.5152/npa.2015.10050>
- Islam, F., Kar, S., Debroy, A., & Sarma, R. (2014). Substance abuse amongst the street-children in Guwahati city, Assam. *Annals of Medical and Health Sciences Research*, 4(9), 233 - 238. <https://doi.org/10.4103/2141-9248.141965>
- Jaswal, N., Naskar, C., Ghosh, A., Prashar, S., & Kumar, M. (2023). Substance use and misuse among college students: Results of an online survey from three neighboring cities of North India. *Indian Journal of Psychiatry*, 65(9), 966–970. https://doi.org/10.4103/indianjpsychiatry.indianjpsychiatry_661_22
- Jat, M. I., Arain, M. T., Qureshi, S., Das, K., & Haider, A. (2019). Prevalence and reasons of use of different psychoactive substances among prisoners at Malir Prison, Karachi. *The Professional Medical Journal*, 27(07), 1488–1492. <https://doi.org/10.29309/tpmj/2020.27.07.4473>
- Jones, C. T., & Branco, S. F. (2021). Cultural

- considerations in addiction treatment: The application of cultural humility. *Advances in Addiction & Recovery*, 9(1), 18–21.
- Kamaladshan, S., Thusiya, A., Sivakanthan, S., & Surenthirakumaran, R. (2018, August 7). *Prevalence of substance abuse and associated factors on substance abuse among G.C.E Advanced Level students in the Nallur Educational Division*. Undergraduate Research Symposium 2018, Faculty of Medicine, University of Jaffna, Sri Lanka. <http://repo.jfn.ac.lk/med/handle/701/1760>
- Kokiwar, P., Sushma, J., Babu, K., Bhargavi, K., Chandra, K., Aishwarya, K., Tarun, K., Swathi, K., Lahari, K., Neha, K., Dhanraj, K., Vineesh, K., Praneeth, K., Sahithi, K., Sphoorthi, K., & Binathi, K. (2019). Determinants of alcohol and tobacco use among medical students of a medical college in South India. *MRIMS Journal of Health Sciences*, 7(4), 117–120.
- König, C., Skriver, M. V., Iburg, K. M., & Rowlands, G. (2018). Understanding educational and psychosocial factors associated with alcohol use among adolescents in Denmark; Implications for health literacy interventions. *International Journal of Environmental Research and Public Health*, 15(8), Article 1671. <https://doi.org/10.3390/ijerph15081671>
- Koob, G. F., & Volkow, N. D. (2016). Neurobiology of addiction: A neurocircuitry analysis. *The Lancet Psychiatry*, 3(8), 760–773. [https://doi.org/10.1016/s2215-0366\(16\)00104-8](https://doi.org/10.1016/s2215-0366(16)00104-8)
- Lambrechts, M., Vandersmissen, L., & Godderis, L. (2019). Alcohol and other drug use among Belgian workers and job-related consequences. *Occupational and Environmental Medicine*, 76(9), 652–659. <https://doi.org/10.1136/oemed-2019-105690>
- Lund, I., Moan, I. S., & Edvardsen, H. M. E. (2019). The relative impact of smoking, alcohol use and drug use on general sickness absence among Norwegian employees. *BMC Public Health*, 19(1), Article 500. <https://doi.org/10.1186/s12889-019-6891-1>
- Matsumoto, D., & Juang, L. (2016). *Culture and psychology*. Cengage Learning.
- Mazur, J., Tabak, I., Dzielska, A., Wąż, K., & Oblacińska, A. (2016). The relationship between multiple substance use, perceived academic achievements, and selected socio-demographic factors in a Polish adolescent sample. *International Journal of Environmental Research and Public Health*, 13(12), Article 1264. <https://doi.org/10.3390/ijerph13121264>
- Measham, F., & Brain, K. (2005). 'Binge' drinking, British alcohol policy, and the new culture of intoxication. *Crime, Media, Culture*, 1(3), 262–283. <https://doi.org/10.1177/1741659005057641>
- Moonajilin, M. S., Kamal, M. K. I., Mamun, F. A., Safiq, M. B., Hosen, I., Manzar, M. D., & Mamun, M. A. (2021). Substance use behaviour and its lifestyle-related risk factors in Bangladeshi high school-going adolescents: An exploratory study. *PLoS ONE*, 16(7), Article e0254926. <https://doi.org/10.1371/journal.pone.0254926>
- Panthee, B., Panthee, S., Gyawali, S., & Kawakami, N. (2017). Prevalence and correlates of substance use among health care students in Nepal: A cross sectional study. *BMC Public Health*, 17(1), Article 950. <https://doi.org/10.1186/s12889-017-4980-6>
- Papayiannis, S., & Anastassiou-Hadjicharalambous, X. (2011). Cross-cultural studies. In S. Goldstein & J. A. Naglieri (Eds.), *Encyclopedia of child behaviour and development* (pp. 438–440). Springer. https://doi.org/10.1007/978-0-387-79061-9_738
- Parker, H. (1999). Illegal leisure: The normalisation of adolescent recreational drug use. *Health Education Research*, 14(5), 707–708. <https://doi.org/10.1093/her/14.5.707>
- Patel, J., Mubashir, A., Shruti, M., & Maheswar, D. M. (2016). Prevalence of tobacco consumption and its contributing factors among students of a private medical college in Belgaum: A cross-sectional

- study. *Ethiopian Journal of Health Sciences*, 26(3), 209–216. <https://doi.org/10.4314/ejhs.v26i3.3>
- Raphael, L., Raveendran, R., & M, S., V. (2017). Prevalence and determinants of substance abuse among youth in central Kerala, India. *International Journal of Community Medicine and Public Health*, 4(3), 747–751. <https://doi.org/10.18203/2394-6040.ijcmph20170752>
- Richelle, L., Kacenelenbogen, N., Kornreich, C., & Aron, M. (2024). Expectations and needs of people with illicit substance use disorders in general practice: a qualitative study in Belgium. *BMC Primary Care*, 25(1), Article 303. <https://doi.org/10.1186/s12875-024-02493-3>
- Saxena, S., Mani, R., Dwivedi, A., Ryali, V. S. R., & Timothy, A. (2019). Association of educational stress with depression, anxiety, and substance use among medical and engineering undergraduates in India. *Industrial Psychiatry Journal*, 28(2), 160–169. https://doi.org/10.4103/ipj.ipj_3_20
- Sojib, M. T. H., Rahman, M. H., Gogon, M. I. R., & Hasan, M. K. (2024). Does parent-child connectedness influence substance use among Bhutanese adolescents: Evidence from a national survey? *BMC Public Health*, 24(1), Article 2889. <https://doi.org/10.1186/s12889-024-20404-0>
- Substance Abuse and Mental Health Services Administration. (2024, April 24). *Center for Substance Abuse Treatment*. <https://www.samhsa.gov/about/offices-centers/csat>
- Sue, D. W. (2001). Multidimensional facets of cultural competence. *The Counseling Psychologist*, 29(6), 790–821. <https://doi.org/10.1177/0011000001296002>
- Thennakoon, J. C., Adithiya, D. D., & Jayamaha, A. R. (2024). The association between personality traits and substance use among advanced level students in western province, Sri Lanka: A cross-sectional study. *Addiction and Health*, 16(2), 100–106. <https://doi.org/10.34172/ahj.2024.1520>
- van Cleemput, O. (2018). *Family backgrounds and adolescents' drug use and abuse in France: Insights from the 2017 ESCAPAD Survey* [Master's thesis, Université Catholique de Louvain]. <https://dial.uclouvain.be/memoire/ucl/object/thesis:15113>
- van Laar, M., Crust, A., Ooyen-Houben, MMJ., Meijer, R., Croes, E., Brunt, T., & Ketelaars, T. (2011). *Netherlands National Drug Monitor. NDM Annual Report 2010*. Trimbos Institute. https://repository.wodc.nl/bitstream/handle/20.500.12832/1883/full-text_tcm28-71559.pdf?sequence=3&isAllowed=y
- Wangdi, K., & Jamtsho, T. (2019). Drug use among teenagers and young adults in Bhutan. *Indian Journal of Psychological Medicine*, 41(6), 535–540. https://doi.org/10.4103/ijpsym.ijpsym_348_19
- World Health Organization. (2016). *International statistical classification of diseases and related health problems* (10th ed.). <https://icd.who.int/browse10/2016/en>