



# Introductory Chapter

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**Abstract** Substance use and misuse present a major public health risk and continues to affect younger populations in previously low use areas such as sub-Saharan Africa. With increased globalization, there has been an unprecedented increase in drug trafficking and acceptance of substance use/misuse, resulting in adverse consequences at the individual, family, community, and national levels. In this book, scholars from diverse behavioural sciences and public health disciplines analyze different issues surrounding substance use/misuse with an emphasis on sub-Saharan Africa. The introductory chapter covers concepts and use of terminology in substance use research and practice, including a section on epidemiology, while providing an overview of the whole book. The book is divided into two main sections with the first section (Chaps. 1, 2, 3, 4, 5, 6 and 7) emphasizing aetiology, signs and symptoms, risk factors, impact, and psychosocial challenges relating to use of conventional drugs, among others. The second section (Chaps. 8, 9, 10 and 11) focuses on prevention and intervention strategies to curtail substance use/misuse. Chap. 12 summarizes the book and suggests implications for research, practice, and policy.

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The book is inspired by the evidently increasing substance use as a result of several factors which include, but are not limited to, stressful life events.

**Keywords** Substance use • Substance misuse • Sub-Saharan Africa • Terminology • Substance use disorders • Dependence

Substance use/misuse continues to have a great impact on public health in diverse settings and is a common phenomenon worldwide. The use and misuse of substances is also a major risk to mental illness (United Nations Office on Drugs and Crime (UNODC), 2018) and affects people, particularly younger populations, in previously low use areas such as sub-Saharan Africa (Diraditsile & Rasesigo, 2018). With increased globalization, there has been an unprecedented increase in drug trafficking and acceptance of substance use resulting in adverse consequences at the individual, family, community, and national levels. The situation is rife in Africa (Luengo-Cabrera & Moser, 2016) but the impact is not well known due to inadequate research, lack of advocacy, reporting, and intervention. Sky News (2021) reported that in England and Wales, the number of deaths related to alcohol use increased by almost 20% in 2020. Sky News also documented that about 80% of deaths related to alcohol use were from alcoholic liver disease, 10% from mental and behavioural disorders originating from alcohol use, and six (6%) from accidental poisoning by exposure to alcohol (Sky News, May 2021). The statistics are quite disconcerting given the fact that people have been grappling with containing COVID-19. Similar statistics are found in other countries throughout the world hence the need for advocacy, prevention, and effective intervention.

There is dearth of information on substance use in sub-Saharan Africa as researchers have been focusing mostly on communicable diseases, particularly HIV and AIDs and now COVID-19. Few published data/reports include surveys done on the prevalence of substance use in South Africa in 2012 (Peltzer & Phaswana-Mafuya, 2018) and 2018 (Kuteesa et al., 2019). Mortality rates resulting from substance use/misuse were also assessed in South Africa (Mouton et al., 2015). Nonetheless, there is also outdated information on concepts and approaches to sustainable community health with regard to substance use available to educators, policymakers, development agencies, and social service providers, even though

community development and well-being are tied to community health (e.g., Institute of Medicine and National Academy of Sciences (IMNAS), 2010). Although the mortality rate due to substance use is reported to be higher in low- and middle-income countries (LMICs), research and statistics are limited when compared to high-income countries (Mouton et al., 2015; Peacock et al., 2018). Rigorous procedures for collection, collation, and reporting of data for precise assessments of substance use/misuse trends and its disease burden are a prerequisite (Peacock et al., 2018).

Substance use and misuse also lead to substance use disorders (SUDs) whereby affected individuals may lose control of their need to use a substance and become over-reliant. Further, substance use/misuse has deleterious effects on physical health (e.g., cancer, heart diseases, stroke, etc.), mental health (e.g., depression, anxiety, etc.), and may increase the likelihood of accidents and/or injury—hence the need for timely interventions. The current COVID-19 pandemic has exacerbated substance use/misuse problems as people are struggling with its negative physical, psychosocial, and economic effects, thereby calling for the bio-psychosocial model with regard to intervention and prevention. Studies in sub-Saharan Africa have revealed the need for advocacy and other public health interventions to curb this cumulative problem (e.g., Dada et al., 2018 in Nigeria; Kalema & Vanderplasschen, 2015 in South Africa; Idowu et al., 2018 in Uganda; Tapera et al., 2020 in Botswana), which is only possible if the impact of substance use is known.

Assessing the harmful effects of substance use poses numerous challenges. IMNAS (2010) recognized flaws emanating from using the disability-adjusted life years (DALYs) metric. For instance, its failure to include the psycho-social and/or economic influences at individual, family, societal, or health systems levels or the real burden that substance use and misuse has on the lives of victims and caregivers. Acknowledging the aforementioned limitations on a DALYs and years-living-with-disability (YLDs) basis, this book will make use of the bio-psychosocial model to understand the impact of substance use, misuse, treatment, and intervention strategies in sub-Saharan Africa even though Africa has the lowest disease burden (DALYs=4%; YLDs=18%) due to having less neuropsychiatric ailments than the rest of the world (DALYs=12%; YLDs=31%) (IMNAS, 2010). Neuropsychiatric ailments (e.g., dependences, depression) result from traumatic brain injury which is mostly caused by alcohol and other substance use, and environmental influences. Nonetheless,

psychological and psychiatric treatments reduce the inception of use, enhancing the significance of this book.

In the current book, scholars from different countries explore contemporary issues concerning the use and misuse of substances. The book focuses on the physical, cultural, and psychological/emotional aspects of substance use (e.g., dependence), its impact on health and the populace, prevention, treatment, and intervention.

### AIMS AND SCOPE OF THE BOOK

The topics covered in this book are of immense interest to students, academics, health personnel, and researchers in medical, social, and behavioural sciences. This book will give an exposition of use and misuse of substances and it can be used by students of psychology, social work, public health, pharmacy, and psychiatry. The focus is on advocacy, the best approaches to intervene and curtail substance use and misuse. The book may also be of interest to policymakers, civil society, and other stakeholders interested in raising awareness or developing interventions on substance use and misuse. It further seeks to provide a resource on sustainable community health concepts, procedures, and practices for addressing substance use for the health and well-being of partner communities. Alcohol, tobacco, marijuana, and prescription drugs are the most commonly misused substances across age groups; however, the use pattern of the aforementioned and other drugs and their impact vary depending on life stage (Schulte & Hser, 2014). The foregoing authors posited that in terms of health outcomes, all ages are at risk for overdose, accidental injury, and intended injury such as suicide.

Concerning prevention and intervention: behavioural, environmental, psychosocial, and cultural factors that may affect substance use are addressed and applied to various aspects of use; for instance, dependence, intoxication, and withdrawal on substances such as tobacco, alcohol, marijuana, and others. This book could not have come at any other opportune time. The advent of COVID-19 has led to an increase in substance use (Wang et al., 2021). In addition to other risks arising from substance use, those with SUDs are more likely to develop COVID-19 and experience worse COVID-19 outcomes, including a higher risk of hospitalization and mortality (Wang et al., 2021). The aforementioned authors also posited that the impact is further affected by disparities in access to healthcare in different communities.

Rassool (2018) and Winger et al. (2004) are important sources of literature on substance use. However, they provide a more general approach to substance use and in many cases speak to a Western rather than African audience. Winger et al. (2004), for instance, took a more biomedical approach, while Rassool (2018) took a multidisciplinary approach. The current book project distinguishes itself from these books in terms of providing evidence and practices from a diverse perspective, particularly the perspectives from the non-Western, Educated, Industrialized, Rich, and Democratic (non-WEIRD) contexts. Though this book also takes a multidisciplinary approach, it differs from Rassool's book because the book benefits from the expertise of different specialists; Rassool's book was authored by a single expert placing limitations on the extent of knowledge that can be shared in each chapter. Similarly, this book differs from Winger et al.'s book given that the former was written with a non-technical audience in mind. This book project seeks to create literature that will support the training of and practice by health and dependence practitioners in international contexts. The book project will also provide a much-needed context-specific and context-relevant literature for teachers, students, and practitioners in non-Western contexts.

The book by Ndasauka and Kayange (2019) is an exception, although its focus was on dependence. It is a vital source of literature and prevalence of dependency in African settings. The prevalence of dependence is a good starting point as it helps students and practitioners design effective psycho-education programs for clients. However, while it might have incorporated the bio-psychosocial model, the book focused on dependence and offered a more general approach to substance use.

Contributors of the current book have also focused on challenges experienced by users and how to prevent, promote, and intervene with regard to substance use/misuse. Change is complex and context-specific and differs across cultures; therefore, readers should take cognizance of the types of interventions implemented. Several questions have guided the editor and the chapter authors. These include:

1. What are the burdens of diseases in sub-Saharan Africa?
2. How do SUDs manifest as developmental disorders?
3. What are the causes, risk factors, signs, and symptoms of mental and behavioural disorders?
4. What is the impact of substance use/misuse on non-communicable and communicable diseases such as HIV/AIDS and COVID-19?

5. What is the impact of tobacco advertising and promotion on youth smoking in developing countries?
6. What strategies are used to reduce tobacco advertising and promotion using the Framework Convention on Tobacco Control (FCTC) as a proven tool?
7. What significant socio-economic losses are attributed to the harmful use of substances, particularly alcohol?
8. What are the theoretical models underpinning the revolution of substance use?
9. How do the alcohol industry and its policies impact substance use?
10. What is the impact of harmful substances on health?
11. How does the introduction of prescription drugs to Africa increase the availability and misuse of psychoactive substances?
12. How does substance use affect work performance and organizational productivity?
13. What measures can be used to reduce substance use, particularly among the youth?
14. Which prevention and intervention strategies are effective in curtailing substance use in adults?

## SECTIONS OF THE BOOK

This book was inspired by the number of young people who experience adverse drug reactions and died from substance use and misuse including prescription drugs (see Klein et al., 2020; Mbongwe et al., 2020; Mouton et al., 2015). Morbidity and mortality have motivated us to take stock of challenges facing people in various contexts and countries. The world has many stressors; poverty, pandemics, abuse and stigma, bullying, and many others that need curtailing. In this book, scholars from different countries and diverse behavioural sciences and public health disciplines analyse different issues surrounding substance use/misuse with an emphasis on sub-Saharan Africa. Like other social groups, substance users are dynamic and subject to influences across their proximal and distal environments. Although people are subject to change over time, they retain characteristics from their past in their present hence the need for intervention. Users can be resilient and are capable of dealing with profound changes if provided with the requisite support.

The introductory chapter covers concepts and use of terminology in substance use research and practices while providing an overview of the whole book. The book is divided into two main sections with the first section (Chaps. 1, 2, 3, 4, 5, 6 and 7) emphasizing aetiology, signs and symptoms, risk factors, impact, and psychosocial challenges relating to the use of conventional drugs, among others. The second section (Chaps. 8, 9, 10, 11 and 12) focuses on substance use in the workplace, misuse of prescription drugs, treatment, prevention, and intervention strategies to curb substance use. Each chapter comprises case studies and follow-up questions for practice and reflection. Case studies identifying problems with substance use are presented to provide a more robust discussion. The two sections integrate and synthesize many of the most important issues affecting substance use, misuse, prevention, treatment, and intervention.

Chapter 2 explores early developmental influences on substance use disorders; it embraces a developmental perspective in reviewing the underlying mechanisms of SUDs. This developmental perspective provides a holistic view of SUDs as a process, highlighting the interaction of multiple contributory factors over the lifespan. Prominent models of SUDs are also discussed.

Chapter 3 examines alcohol use. A focus on alcohol use/misuse is important as the World Health Organization (WHO, 2018) attributes 5.1% of the global burden of disease and injury to the use of alcohol. Alcohol is the most extensively used and misused substance throughout the world. Beyond health consequences, the harmful use of alcohol is attributed to major socio-economic losses to individuals, families, and societies. Aetiology, risk factors, signs, and symptoms of mental and behavioural disorders attributed to alcohol are explored. Chapter 4 presents a summary of the policies and laws that control and mitigate the use of alcohol, using examples from different countries in sub-Saharan Africa. The antagonistic marketing and policy meddling actions by alcohol producers, some of which are criticized by civil society and public health campaigners are also discussed.

Chapter 5 analyzes tobacco as a looming epidemic in sub-Saharan Africa. The chapter highlights the epidemiology of tobacco use and exposure to tobacco smoke, which are said to exacerbate the prevalence of non-communicable and communicable diseases. The detrimental impact of tobacco use on people's health is also explored, suggesting that tobacco use should be a public health priority. Chapter 6 gives an exposition of the

WHO Framework Convention on Tobacco Control (FCTC). The WHO FCTC is the first global evidence-based public health treaty developed by countries in response to the pandemic use of tobacco products and the aggressive tactics of the tobacco industry that undermine public health efforts (WHO, 2005). This chapter explores the catalytic role the FCTC has played globally in curbing tobacco use since its adoption in 2003. Measures relating to the reduction of demand and supply of tobacco in sub-Saharan Africa are discussed. Chapter 7 explores the most commonly used illicit drugs (e.g., cocaine, heroin, marijuana, whoonga, etc.) and their effect on health and wellbeing. Factors that lead to the use of illicit drugs are discussed. The effect each substance has on the physical and mental health of individuals and communities is also debated, including resultant diseases.

Chapter 8 of the second section emphasizes substance use in organizations, policies, and interventions. Counterproductive work behaviours related to substance use such as lateness, absenteeism, presenteeism (physically present but unproductive), workplace incivilities, psychosomatic ailments, as well as physical ailments are discussed. Policymakers, human resources practitioners, unions, and other stakeholders are encouraged to take cognizance of the harmful impact of substance use during working hours or otherwise and make appropriate interventions.

Chapter 9 elucidates prescription drug misuse and prevention strategies. There is anecdotal evidence that prescription drug misuse is a major global concern particularly in low and middle-income countries (LMICs). This problem only comes to light when well-known personalities (celebrities) die from prescription drug misuse. The three most commonly misused psychoactive prescription drugs, that is, stimulants (e.g. methamphetamine), opioids (e.g. codeine), and central nervous system depressants (e.g. benzodiazepines) are discussed. Evidence-based prevention strategies, harm reduction, and current treatment interventions for prescription drug disorders are also explored in this chapter.

Chapter 10 examines the prevention of SUDs in special populations (e.g., poor or homeless, young adults or teenagers, the elderly and trauma survivors). Special populations have unique health concerns that require extraordinary attention in the prevention and treatment of SUDs. Young people's engagement with substances, challenges, best practices, and recommendations for prevention and treatment are also presented. Chapter



11 takes cognizance of the fact that there is no single approach to dealing with substance use as intervention depends on aetiology, personality traits of the users, and the different rehabilitation institutions, while exploring the effective prevention and intervention strategies of substance use in adults. The following interventions are discussed: cognitive-based therapies, confrontational models of intervention, crisis intervention, systemic family models of persuasive intervention, and school-based prevention education intervention. Chapter 12 concludes the book and is inspired by the increasing substance use/misuse because of several factors which include but are not limited to stressful life events.

Readers should take cognizance that when distressed individuals are able to recover, they operate from a foundation of strength and can, therefore, perform their roles with greater efficacy. The use of illicit and licit substances is a cause for concern and may lead to harm hence the need for prevention. The provision of more qualified specialists to intervene is needed in sub-Saharan countries to combat the rising numbers of substance use cases in both adolescents and adults. Nonetheless, certain terms are discouraged from use to evade and reduce stigma when writing about substance use/misuse.

### STIGMATIZING WORDS TO AVOID, WORDS TO USE, AND DEFINITIONS

While certain language may be considered disparaging, it is generally used within social communities of people who struggle with SUDs. Feeling stigmatized can reduce the willingness of individuals with SUDs to seek treatment (Yang et al., 2017), and stigmatizing language can negatively influence healthcare providers' perceptions of people with SUDs (Ashford et al., 2019), which can impact the care they provide. Stigma can also reduce the readiness of policymakers to apportion resources, reduce the willingness of providers in non-specialty settings to screen for, and address substance use (Hadland et al., 2018). However, clinicians can demonstrate leadership in using acceptable language that may destigmatize words considered by stakeholders as inappropriate. The words and the definitions that may be used to destigmatize recurring concepts used in this book are given in Table 1.1. The words that are not defined in the table below will be explained in the respective chapters.

**Table 1.1** Terms to avoid, terms to use and definitions

<i>Terms to avoid</i>	<i>Terms to use</i>	<i>Definitions</i>
Substance abuse (SA)	Substance use (for illicit drugs and licit drugs like alcohol and tobacco)	Is the harmful indulgence in substances for mood-altering purposes in a way that may pose a threat to health, families and even the community (Marshall & Spencer, 2018)
Substance abuse	Substance misuse (for prescription drugs)	Refers to occurrences or patterns of substance use not consistent with legal or medical guidelines and associated with physical, psychological, economic, and social problems (Schulte & Hser, 2014)
	Substance dependence and substance abuse are combined into SUDs in DSM (Diagnostic and Statistical Manual of Mental Disorders)-5 (American Psychiatric Association (APA), 2013)	It is also about the use of substances that may pose a risk to health, security or the well-being of individuals, families, or communities (Lander et al., 2013)
Addiction	Dependence	SUDs are indicated by a problematic pattern of using any substance that results in impairment in daily life or other noticeable distress (Hartney & Gans, 2020)
	Substance dependence	‘Negative consequences, (i.e., cravings, urges and the repetitive and excessive continued use of the substance) even when it disrupts a person’s life, brought about by bio- psycho-social cultural factors’ (Ndasauka & Kayange, 2019, p. 1)
	Tobacco use	This is indicated by a maladaptive pattern of substance use and misuse resulting in significant impairment or distress (Morrison, 2014)
Addict	Person with substance use disorder	Is defined as the use of any type of tobacco products, both smoked (consumption of smoke from burnt products) and smokeless (consumption of unburnt tobacco products by mouth or nose) (WHO, 2019)
Alcoholic, drunk	Person with alcohol use disorder	Person who misuses alcohol

*(continued)*

**Table 1.1** (continued)

<i>Terms to avoid</i>	<i>Terms to use</i>	<i>Definitions</i>
Substance or drug abuser, junkie	Patient	
Dirty	Testing positive for toxicology screen results	
Clean	Testing negative for toxicology screen results	

Adapted from the National Institute of Drug Abuse (May 2021).

## REFERENCES

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Association.
- Ashford, R. D., Brown, A. M., McDaniel, J., & Curtis, B. (2019). Biased labels: An experimental study of language and stigma among individuals in recovery and health professionals. *Substance Use & Misuse*, 54(8), 1376–1384. <https://doi.org/10.1080/10826084.2019.1581221>
- Dada, S., Harker Burnhams, N., Laubscher, R., Parry, C., & Myers, B. (2018). Alcohol and other drug use among women seeking substance abuse treatment in the Western Cape, South Africa. *South African Journal of Science*, 114(9/10). <https://doi.org/10.17159/sajs.2018/4451>
- Diraditsile, K., & Rasesigo, K. (2018). Substance abuse and mental health effects among the youth in Botswana: Implications for social research. *Journal of Education, Society and Behavioural Science*, 24(2), 1–11.
- Hadland, S. E., Park, T. W., & Bagley, S. M. (2018). Stigma associated with medication treatment for young adults with opioid use disorder: A case series. *Addiction Science & Clinical Practice*, 13(1), 15. <https://doi.org/10.1186/s13722-018-0116-2>
- Hartney, E., & Gans, S. (2020, March 21). *A guide to DSM 5 criteria for substance use disorders*. <https://www.verywellmind.com/dsm-5-criteria-for-substance-use-disorders-21926>
- Idowu, A., Aremu, A. O., Olumide, A., & Ogunlaja, A. O. (2018). Substance abuse among students in selected secondary schools of an urban community of Oyo-state, southwest Nigeria: Implication for policy action. *African Health Sciences*, 18(3), 776–785. <https://doi.org/10.4314/ahs.v18i3.36>

- Institute of Medicine and National Academy of Sciences. (2010). *Mental, neurological, and substance use disorders in sub-Saharan Africa: Reducing the treatment gap, improving quality of care. Summary of a joint workshop by the Institute of Medicine and the Uganda National Academy of Sciences*. The National Academies Press. <https://doi.org/10.17226/12828>
- Kalema, D., & Vanderplasschen, W. (2015). Features and challenges of alcohol abuse treatment in Uganda. *African Journal of Drug & Alcohol Studies*, 14(2), 125–135.
- Klein, A., Patwardhan, S., & Loglo, M. G. A. (2020). Divergences and commonalities between the US opioid crisis and prescription medicine mis/use in West Africa. *International Journal of Drug Policy*, 76, 102640.
- Kuteesa, M. O., Seeley, J., Weiss, H. A., Cook, S., Kamali, A., & Webb, E. L. (2019). Alcohol misuse and illicit drug use among occupational groups at high risk of HIV in sub-Saharan Africa: A systematic review. *AIDS and Behavior*, 23(12), 3199–3225.
- Lander, L., Howsare, J., & Byrne, M. (2013). The impact of substance use disorders on families and children: From theory to practice. *Social Work in Public Health*, 28(3-4), 194–205. <https://doi.org/10.1080/19371918.2013.759005>
- Luengo-Cabrera, J., & Moser, A. (2016). Transatlantic drug trafficking-via Africa. *European Union Institute for Security Studies*, 3, 1–2.
- Marshall, B., & Spencer, J. (2018). *Essentials of substance use disorders*. Springer Publishing Company.
- Mbongwe, B., Moinami, J., Masupe, T., Tapera, R., Molefe, T., Erick, P., Godman, B., & Masele, A. (2020). Nature and sources of poisoning in patients admitted to a referral hospital in Gaborone, Botswana; Findings and implications. *Hospital Practice*, 48(2), 100–107.
- Morrison, J. (2014). *DSM-5 made easy- The clinician's guide to diagnosis*. The Guilford Press.
- Mouton, J. P., Mehta, U., Parrish, A. G., Wilson, D. P., Stewart, A., Njuguna, C. W., Kramer, N., Maartens, G., Blockman, M., & Cohen, K. (2015). Mortality from adverse drug reactions in adult medical inpatients at four hospitals in South Africa: A cross-sectional survey. *British Journal of Clinical Pharmacology*, 80(4), 818–826.
- National Institute of Drug Abuse. (2021, May 25). *Words matter – Terms to use and avoid when talking about addiction*. <https://www.drugabuse.gov/nidamedical-medical-health-professionals/health-professions-education/words-matter-terms-to-use-avoid-when-talking-about-addiction>
- Ndasauka, Y., & Kayange, G. M. (Eds.). (2019). *Dependency in South and East Africa: Interdisciplinary approaches*. Palgrave Macmillan/Springer.
- Peacock, A., Leung, J., Larney, S., Colledge, S., Hickman, M., Rehm, J., Giovino, G. A., West, R., Hall, W., Griffiths, P., Ali, R., Gowing, L., Marsden, J., Ferrari, A. J., Grebely, J., Farrell, M., & Degenhardt, L. (2018). Global statistics on

- alcohol, tobacco and illicit drug use: 2017 status report. *Addiction (Abingdon, England)*, 113(10), 1905–1926. <https://doi.org/10.1111/add.14234>
- Peltzer, K., & Phaswana-Mafuya, N. (2018). Drug use among youth and adults in a population-based survey in South Africa. *South African Journal of Psychiatry*, 24.
- Rassool, H. (2018). *Alcohol and drug misuse: A guide for health and social care professionals* (2nd ed.). Routledge.
- Schulte, M. T., & Hser, Y. I. (2014). Substance use and associated health conditions throughout the lifespan. *Public Health Reviews*, 35(2). <https://doi.org/10.1007/BF03391702>
- Sky News. (2021, May 6). *Alcohol deaths highest for 20 years in England and Wales*. <https://news.sky.com/story/alcohol-deaths-highest-for-20-years-in-england-and-wales-new-data-shows-12298375>
- Tapera, R., Mbongwe, B., Mhaka-Mutepfa, M., Lord, A., Phaladze, N. A., & Zetola, N. M. (2020). The theory of planned behavior as a behavior change model for tobacco control strategies among adolescents in Botswana. *PLoS ONE*, 15(6). <https://doi.org/10.1371/journal.pone.0233462>
- United Nations Office on Drugs and Crime. (2018). *World drug report*. United Nations Office on Drugs and Crime. <https://www.unodc.org/wdr2018/index.html>
- Wang, Q. Q., Kaelber, D. C., Xu, R., & Volkow, N. D. (2021). COVID-19 risk and outcomes in patients with substance use disorders: Analyses from electronic health records in the United States. *Molecular Psychiatry*, 26, 30–39. <https://doi.org/10.1038/s41380-020-00880-7>
- Winger, G., Woods, J. H., & Hofmann, F. (2004). *A handbook on drug and alcohol misuse: The biomedical aspects* (4th ed.). Oxford University Press.
- World Health Organisation. (2018). *Global status report on alcohol and health*. World Health Organisation. <https://apps.who.int/iris/handle/10665/274603>
- World Health Organisation. (2019). *WHO report on the global tobacco epidemic, 2019: Offer help to quit tobacco use*. World Health Organisation. <https://www.who.int/teams/health-promotion/tobacco-control/who-report-on-the-global-tobacco-epidemic-2019>
- World Health Organization. (2005). *WHO framework convention on tobacco control*. World Health Organization. [https://www.who.int/tobacco/framework/WHO\\_FCTC\\_english.pdf](https://www.who.int/tobacco/framework/WHO_FCTC_english.pdf)
- Yang, L. H., Wong, L. Y., Grivel, M. M., & Hasin, D. S. (2017). Stigma and substance use disorders: An international phenomenon. *Current Opinion in Psychiatry*, 30(5), 378–388. <https://doi.org/10.1097/YCO.0000000000000351>