

IFMSA Policy Proposal Addiction

Proposed by Team of Officials
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Policy Statement

Introduction:

Addiction is a global burden that significantly impacts individuals and communities worldwide. Having a high direct and indirect effect on health and social well-being, it is a prominent contemporary challenge. Yet, due to the strong social stigma by which it is surrounded and the history of bold discriminatory actions, addiction is often associated with criminality by default. However, it is essential to acknowledge that it is a public health issue and coordinated efforts to address addiction holistically are vital to sustainable development.

IFMSA position:

The International Federation of Medical Students' Associations (IFMSA) identifies addiction as a global problem with a complex nature, requiring a correspondingly multidimensional approach. Both its health and social impact, as well as the social and institutional stigma against people with addiction, are having consequences of utmost importance. Thus, coordinated international, national, and local action must be taken to address this issue and guarantee every individual's right to health. The IFMSA firmly believes that addressing addiction should be prioritised. Thus, addiction prevention, treatment, and destigmatisation are crucial pillars of achieving universal, holistic, and equitable progress in health.

Call to Action:

IFMSA calls for

- **The World Health Organisation (WHO), the United Nations (UN), and its relevant agencies to:**
 - Develop, adopt, and promote international policy frameworks to address addiction as a public health issue through a human rights-based approach
 - Promote and provide technical support for international, regional and national cooperation between State and Non-State Actors in strengthening local, national, regional and international efforts to achieve the Sustainable Development Goals that are impacted by addiction
 - Meaningfully engage youth in the decision-making process through equal representation of youth in international dialogues and policies related to addiction".
 - Establishing addiction prevention frameworks with a specific focus on vulnerable and marginalised groups
- **Governments to:**
 - Commit to implementing national strategies to address addictions holistically.
 - Provide financial and logistical support to research on addiction.
 - Consider intersectional vulnerabilities while developing policies and strategies.
 - Ensure equal accessibility to the addiction recovery services and avoid centralising these services exclusively in densely populated areas (e.g. urban areas).
 - Strengthen, support, and integrate facilities that provide treatment and rehabilitation services
 - Provide technical and financial support to youth organisations and meaningfully engage them in the development of strategies
 - Develop policies and strategies to eliminate the institutional and structural stigma toward individuals with addiction
 - Support more national research projects in collaboration with non-governmental organisations to increase data on addiction, specifically behavioural addiction.
 - Provide affordable rehabilitation services staffed with high-quality specialists
- **Civil Society:**
 - Collaborate to address addictions in their respective field of work through multidisciplinary actions
 - Develop common advocacy strategies and create international, national and local alliances for the promotion of health-centred addiction responses
 - Participate in and organise activities to educate and sensitise all key stakeholders, including but not limited to the general public, on the stigma of addiction.
- **Medical Schools to:**

- Integrate addiction in the medical education curriculum and ensure its holistic coverage, from both the medical and the psychosocial approach, in the context of social accountability
- Provide continuous education opportunities for healthcare professionals to enhance their knowledge of addictions and increase their awareness of all levels of prevention for their patients
- **Medical Sector and Medical Institutes to:**
 - Implement an interdisciplinary approach to addiction prevention, treatment, and rehabilitation, by collaboratively addressing addictions with mental health professionals, nurses, social workers etc
 - Develop more community outreach campaigns that are more sustainable and strategic and target vulnerable and marginalised groups.
- **IFMSA National Member Organisations to:**
 - Advocate for the elimination of the stigma on addiction by adopting and utilizing policies on addiction on internal and external levels.
 - Advocate for the holistic inclusion of addiction by the medical faculties in the curricula
 - Develop and implement educational activities on addictions under IFMSA Programs
 - Cooperate together to enhance their impact and scale their work on addiction on an international level, sharing resources, technical knowledge, and connections with stakeholders such as other student organisations.
 - Conduct research on addiction among medical students, including but not limited to research on knowledge, attitudes and practices.

POSITION PAPER

Background information:

According to the American Society of Addiction Medicine, "Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences." Prevention and treatment approaches for addiction are generally as successful as those for other chronic diseases." [1] People with addiction engage in behaviours that become compulsive and often continue despite harmful consequences due to the fact that addiction is also characterised by behavioural changes caused by biochemical changes in the brain after persistent substance abuse. [2nd source before source 1] However, dependence is different from addiction because dependence is a "physical state characterised by the symptoms of tolerance and withdrawal." It can be both mental and physical, and it is conceptually connected with a more physiological perspective than addiction, which draws from a more behaviouristic approach. [2]

In addition, according to the WHO's International Classification of Diseases, the disorders due to substance use and addictive behaviours are mental and behavioural disorders. Disorders related to substance use can occur from a single use or repeated use. Usually, the initial use of such substances can produce pleasant psychoactive effects that are rewarding and reinforced after repeated use, which can produce dependence. These disorders can cause distress and interfere with a person's functions. [3]

Discussion

Types of Addiction

One of the misconceptions is that most people think about substance use when they hear about addiction. However, in this era and in the current world evolution, the types of addiction have constantly been increasing with many different types and subtypes. [4]

Currently, there are two broad types of addictions recognised by experts:

1. **Chemical addiction:** this is the addiction that entails the substance use
2. **Behavioural addiction:** this includes compulsive behaviours, which are constant and repeated habits that people keep carrying out even if they are without any benefits and at so many points they might be harmful habits [4]

Chemical addiction :

The two most common types of chemical addictions are alcohol and drug addiction, such as the non-narcotic central nervous system drug addiction. [5]

Drug addiction can include short and intermediate-acting drugs, such as barbiturates, amphetamines, Diazepam, and many more. The characteristics of these drug addictions include, but are not limited to, the deep desire to keep taking the drugs and the urge to increase the dose of the drugs. Furthermore, the psychological and physiological dependence will lead to interrupting the homeostasis and the physical balance of the body [5]

Behavioural addiction

Many behavioural addictions are similar to chemical addictions. Examples include pathological gambling and kleptomania, which are classified as impulse control disorders. In addition, there are other behavioural disorders such as sexual addiction (non-paraphilic hypersexuality), excessive tanning, computer and video game playing, and internet addiction [5]

Another example of behavioural addiction is food addiction, also known as eating addiction. It is one of the most complex behavioural addictions because it includes three clinical components such as 1) eating disorders like lack of control over eating, 2) behaviour disorders as well as 3) substance use disorders such as craving or continuation of using the substances despite awareness of the negative consequences. [6]

Global Burden and Epidemiology

According to the latest complete Global Burden of Disease study, substance use is overall responsible for 12 million deaths, or 35.1 million disability-adjusted life years (DALYs) [7][8]. This corresponds to one in five deaths globally per year [9].

Addiction contributes to death count as a direct and indirect cause. The direct causes are considered the ones stemming from substance use disorder, with direct deaths being noted as overdoses. The indirect causes are deaths where substance abuse was a significant risk covariant due to increased risk of premature death from diseases and injuries. These include suicide, liver disease, hepatitis, HIV, cancer, heart disease, stroke, and diabetes. [10]

In addition, addiction contributes to the social burden in society. For example, substance use disorders affect the social functioning of individuals and create a burden for society. In addition to medical or psychiatric conditions, disability, and death, other social problems arise, such as housing instability, homelessness, criminal behaviours (victim or perpetrator), incarceration, unemployment or dependence on welfare. This also leads to increased costs on different levels, and thus creating an economic burden for governments or payors who spend huge amounts of money for treating addiction, medical or psychiatric disorders, and other associated problems such as those mentioned above.[11]

Moreover, behavioural addiction for instance can include a collection of disorders, such as depression, anxiety, obsessive thoughts, withdrawal and isolationism, affective disorders, disturbances in social relationships, school problems such as lack of interest in doing homework and educational failure,, occupational or interpersonal difficulties, isolation and negligence of friends and family or personal responsibilities, and physical or mental restlessness. All this contributes to increased burden. [12]

Discussion

Determinants of Addiction

Biology and Genetics

For the past years, researchers have looked into genetics as a possible factor in causing addiction; some phenotypes are involved in developing such disorders. Endophenotypes (heritable traits derived from laboratory measures) are closely related to biological addiction factors that can't be seen in families with no addiction history. [13]

Impulsivity is one of the endophenotypes that is associated with addiction. It is the tendency to act without thinking [14]. Research shows that the presence of impulsivity, even without substance exposure, could lead to developing an addiction. Impulsivity does not only increase the risk of developing an addiction for people with this endophenotype, but also for their siblings. [13]

Social, economic and political context

The personal factors co-influencing the risk of developing addiction depend on the presence of external facilitating variables, like the social, economic and political context. Thus, addiction cannot be separated, neither on the individual, nor the public level, from the environmental features that enabled its development. As per the external determinants of addiction, three major pillars are identified: social and cultural, socio-economic, and physical environment. [15]

The cultural and social environment includes the influence of social structures and norms in a person's behavioural patterns. Social identity characteristics like class, race and gender can determine access to resources, exposure to exclusion and social roles and expectations. Furthermore, the social environment has a significant impact on community resilience, which in turn is closely correlated to health and social outcomes such as drug use and crime. For example, it has been shown that availability of social support and inclusion, social activity, shared norms, feelings of belonging could be protective against drug-abuse problems in the community. [16]

The socio-economic environment is also directly associated with the risk of developing an addiction on a community and individual level. A low socio-economic status and income inequalities are associated via complex relationship models with an increased prevalence of addiction. Also, the concentration of social disparities to certain minorities further amplifies this correlation. [16]

Finally, the physical environment, including housing, spatial patterns, transport, public spaces, and incarceration status, influences the overall health and access to healthcare of the individuals facing addiction issues. [16][17]

Vulnerabilities and Addiction

Displaced Populations

Population displacement has many causes, including climate change, natural disasters, and violent conflicts. That being said, it also has a lot of consequences. Displaced populations usually develop multiple mental health disorders, including substance use disorder, alcohol, and opiate use as the most common substances used. Reasons for substance abuse are, for example, as a coping mechanism for the stress experienced from their displacement, low self-esteem caused by the stigma they face, and unemployment which causes a financial burden. [18][19]

Mental Health

Individuals with substance use disorders (SUD) are also diagnosed with mental health disorders and vice versa. Multiple national population surveys have realised that 50% of those with mental health illnesses throughout their lives will experience substance abuse disorders and vice versa. When it comes to adolescents with community-based substance use disorders, treatment programs also found diagnostic similarities for another mental disorder, such as conduct disorder, in over 60% of adolescent cases.[20]

Moreover, substance use disorders also co-occur with mental illness, like depression, bipolar disorders, attention-deficit hyperactivity disorder (ADHD) and many more. Furthermore, patients with schizophrenia are usually at a higher level of alcohol, tobacco and drug use disorders compared to the general population. [20]

Policies, Strategies, and Frameworks

Global Action

Taking SDG 3 “Good Health & Wellbeing” as a reference, addiction and substance misuse are included in SDG Target 3.5, “*Substance abuse: Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol*”. This SDG target includes a public health-oriented approach to decrease the prevalence of addiction disorders and substance abuse disorders including providing HIV consultation among substance users as addiction and HIV are closely linked to each other, which is reflected by target 3.3 of the SDGs. [21] During the Seventy-fifth World Health Assembly (WHA), the WHO adopted a “*global strategy to reduce the harmful use of alcohol as a public health priority*” within their 2022-2030 action plan, which includes the action plan in the prevention of alcoholism. [22]

National Actions

Harm reduction

Harm reduction is an approach that aims at minimising the health, social, and legal impact of drug use. It is grounded in justice and human rights, providing an intervention framework free of stigma, discrimination or judgement. [23]

Harm reduction encompasses multiple strategies that deal with different aspects of the impacts of addiction that have been mentioned earlier. One example is syringe services programs. These are community-based prevention programs that provide access to and facilitate the disposal of sterile syringes and other equipment. They are shown to reduce the transmission of HIV and Hepatitis C Virus (HCV) by about 50%. Furthermore, they increase an individual's probability of seeking addiction treatment and to stop drug use by five and three times respectively. [24]

Another highly impactful intervention is overdose prevention centres. These are legally sanctioned facilities that provide a safe and supervised setting for consumption of substances. Several evidence-based, peer-reviewed studies have proven the positive impacts of overdose prevention centres. Some examples are successfully managing hundreds of overdoses, decreasing drug-related overdose death

rates, and increasing use of substance use disorder treatment, specifically among people who do not trust the treatment system and are unlikely to seek treatment on their own. [25]

Treatment and rehabilitation

From a more sociological point of view, addiction is not regarded as a disease but rather as a symptom, behind which lies a unique set of contributing factors for each individual. Thus, treatment efforts should be redirected to the social, economic, political, and cultural determinants that form the intersectional vulnerability web affecting individuals. [26]

Since these external factors influence susceptibility to addiction to such an extent, the Therapeutic Community approach has arisen as an effective treatment model. It is based on integrating people and practices under a common perspective and purpose to guide their personal change, passing a significant share of responsibility to the individual. The core distinguishing feature of this approach is that the therapy is facilitated by the community itself. A Human Rights-Based Approach guarantees the equal and full participation of both patients and staff in a social environment that empowers peers to act in their capacity for personal change. The communities' basic social learning model is enhanced with auxiliary services addressing educational, vocational, medical, mental health, and family-related needs. [27]

As per outpatient behavioural treatment methods, they are based on regular external counsellor-lead programs, offering a variety of therapy approaches [28], such as

- Cognitive-Behavioural Therapy, which guides the person in recovery to alter their thought patterns to eliminate automatic thoughts that loop to addiction [29]
- Multidimensional family therapy, a systemic therapy model developed for adolescents with addiction problems and their families [30]
- Motivational Interviewing, that encourages individuals to become actors of personal change while influencing their problem-solving styles [31]
- Contingency Management, based on operant conditioning with positive reinforcement systems [32]

In terms of behavioural addiction, effective treatment can include selective serotonin reuptake inhibitors in addition to cognitive-behavioural therapy. In addition, for the treatment of behaviours such as drug addiction, four fundamental aspects should be considered: 1 – prior individual psychopathology 2 - differential reinforcement 3 – maladaptive cognitions 4 - Social support network. [12]

Right to Health

Availability

In the World Drug Report 2021, it was stated that drug use killed almost half a million people in 2019, while drug use disorders resulted in 18 million years of healthy life lost, mainly due to opioids. However, the availability of treatment interventions stayed low, where only one eighth of those suffering from a drug use disorder received professional help in 2019. Shortages in these services were observed most of all in poorer countries. This low availability existed despite evidence showing that the cost of treating drug use disorders is considerably lower than the cost of untreated drug dependence. [33]

Accessibility

A study has shown that the inability to access addiction treatment predicts injection initiation among street-involved youth. At the time of the study, 129 (28%) youth disclosed being unable to reach addiction treatment services. [34]

The reasons behind the lack of accessibility of addiction treatments in a total of 183 study observations were the waiting list, logistical issues such as location, required paperwork, and many more. [35]

Furthermore, a study showed that there is less satisfaction with psychosocial therapies for alcohol treatment in Hispanics and African Americans compared to Whites. Moreover, multiple studies reported that racial and ethnic minorities are receiving less treatment retention compared to Whites. [36]

All the examples mentioned above of inadequate access to addiction treatment, logistical issues, discrimination are major accessibility issues that need to be tackled.

Acceptability

On a personal level, healthcare professionals are observed to hold negative prejudice against people with addictions. Their work motivation is reduced when they treat patients with substance use disorders compared to other patient groups. [37] One of the main factors causing this prejudice is the limited knowledge and education on addiction disorders, leading to stereotypes of possible violent or unexpected behaviours. Moreover, the stance of the patient regarding the treatment process and the complexity of the diagnosis are significant factors. Lastly, emotional exhaustion, personal disapproval of substance use by the healthcare providers, and lack of communication skills summatively produce stigmatising behaviours towards patients with addictions. [38]

This discriminatory context crucially damages the doctor-patient relationship and communication. This results in poor compliance to the treatment plan or misdiagnoses. Patients can have the perception that they are at fault for their addiction, that they are incompetent and unwilling to change. They can have the feeling that doctors avoid them or turn them down, leading to a feeling of shame and stigma, especially in cases where they don't have equal access to health services or when they face direct behavioural discrimination. [38][39]

Under these circumstances, patients with addiction will likely avoid seeking healthcare services or not proceed with their treatment or recovery plans. Finally, as a response to past traumatic experiences when seeking healthcare services, many patients tend to hide their addiction, leading to improper medication and adverse outcomes. [37]

Quality

Due to the complexity of addiction, the healthcare provided to patients with addiction often does not meet basic quality standards. The separation of addiction treatment from mainstream healthcare has significant adverse effects on the coordination and quality of care, missing opportunities for prevention or intervention. Even when patients address a healthcare facility for reasons different from their addiction, it is essential for professionals to view their case holistically while co-creating the treatment plan and offering guidance. [40]

A review of studies assessing the quality of care for different substance use disorders found that only 27 percent of the patients reported adequate adherence to established clinical practice guidelines. [41] Furthermore, the lack of clinical guidelines or even the failure to provide any treatment further extends this problem in healthcare facilities. One example is the 1999–2000 study of the care provided to children and adolescents at residential treatment centres in four US states found that 42.9 percent were receiving antipsychotic medications without any history of or current psychosis and thus received such medications for “off-label” purposes. [42]

Also, the co-occurrence of mental health and substance use disorders, called dual diagnosis, makes accurate treatment even more complicated. [43]

Advocacy on addiction

Health promotion

The main component of health promotion, in the context of addiction, is achieved by developing public health and prevention policies which include health promotion, prevention, harm reduction, treatment, and enforcement components. Moreover, health promotion is achieved through creating a supportive environment that promotes mental health and prevents addiction which will reflect positively on the health of the larger population, and it could be improved in schools, communities, and neighbourhoods. Furthermore, health promotion can be achieved by reinforcing community action, so communities have the capacity to make their health decisions as well as build their priorities. [44]

Health Education

Substance use is associated with a broad range of negative impacts on young people's mental and physical health, as well as on their short and long-term well-being. It is also proved that there is a link between substance abuse and consequences to the educational development of youth, such as lack of school engagement, poor performances, and school dropouts.[45]

Educational institutions have a big responsibility to guard children and youth from substance abuse. Moreover, prevention should take place as early as possible, and it should cover all age groups, most importantly the groups in a critical transition period in their development.[45]

A comprehensive education sector responses to substance abuse comprise of :

- Education sector policy and strategy frameworks
- National and subnational curricula
- Training and support for educational personnel
- Evidence-based responses at the school level
- Appropriate school health services
- Effective management of the education sector response

However, the already existing response is very poor, and the education sectors in many countries are not meaningfully engaged in the national response to substance use. Some countries have good evidence-based responses but sadly are not continuous or scaled up worldwide. [45]

Role of Youth

The youth can take an active role in combating addiction by getting involved in policy making efforts. During the identification of the issue, access to subpopulations can be crucial for a complete situational analysis. In the initiation and planning phase, their input can provide a unique perspective, creating a more holistic approach. Finally, in the implementation, monitoring and evaluation processes, meaningful youth involvement is vital for the success of the intervention. Thus, through action in their family circle, educational environments, social media, and public discussions, youth can acquire an upgraded role in advocacy on addiction. [46]

Role of Media

According to a meta-analysis of global literature by the European Monitoring Centre for Drugs and Drug Addiction, mass media campaigns seem to have no impact as an intervention to reduce drug use and have shown weak results in limiting intention for the use of illicit substances. Alarmingly, campaigning can have unwilling effects when targeted to populations that have not demonstrated relevant demand, increasing the inclination to try drugs. [47]

On the other hand, popular media representation of individuals with addictions has a significant effect on public perceptions of addiction, being a strong determinant of the surrounding stigma. The portrayal as a personal choice, the use of discriminatory language, the vivid connection with criminality, and the negative connotations from the contexts within which addiction is mentioned, perpetuate the stereotypes and prejudices against individuals with substance use disorders. [48]

Addiction in Medical Education

Undergraduate curriculum

As far as the undergraduate medical curricula is concerned, addiction is a topic that should be holistically included. While the biochemical model is often mentioned in the syllabus, its psychosocial aspects are disregarded. [49]

Modern bibliography suggests a variety of methodologies for the integration of addiction into the medical curriculum. Formal instructional processes, like seminars or lectures, seem to enhance students' confidence in approaching a patient. The content is usually on basic facts on addiction, treatment and rehabilitation options, legal context, and communication skills. [50] On the other hand, informal experiential learning is more effective in the students' affective domain. Educational focus on the stigma of addiction and direct contact with individuals with addiction facilitates change in their perception of addiction. [51] Most medical students believe that addiction should be a core module in medical education (93.6%). They highly identify the need for training in almost all relevant drug use related topics,

like dealing with such cases (94.2%), dual-diagnosis (95.4%), family support aspects (91.3%), screening and assessment skills (90.7%), while highlighting the significance of knowledge on medical ethics and professional code of conduct (90.1%). [52]

Health workforce education

According to several studies, the prevalence of addiction among the healthcare workforce is increasing, which might be due to causes such as the need to stay awake on night or all-day shifts. However, recent studies suggest that the prevalence of substance abuse is no higher in healthcare professionals than in the general population. Entities such as the US National Institute on Drug Abuse are providing a variety of programmes to educate the healthcare workforce about addiction to get further knowledge on dealing with people with substance use disorder or even preventing them from developing one. However, despite the evident interest in educational interventions as reflected in the volume of the publications, most of which do not provide adequate evidence for effectiveness to be useful to educators building curriculum, showing the need for medical educators to define, design, implement, and evaluate curricula to ensure that all medical school graduates, across disciplines and specialties, has acquired the basic skills they need to address addiction issues such as substance use disorders, in their patients. In addition, Institutions and clinical disciplines need to work together on producing larger, richer, and more rigorous evaluations of existing interventions to ensure that they contribute meaningfully to educational science and improve clinical outcomes. [53][54][55]

Research on Addiction

Based on the information mentioned in point 5.2.3, many misconceptions surround people who have substance use disorders, such as a lack of morality or willpower to abstain. However, addiction is a very complex issue that needs more research to state its pillars, and more awareness is required in the general public. There are so many exerted efforts in Addiction Research such as the psychiatric research institute - UAMS, which works on addiction research to deepen the understanding of the disorder and to develop better interventions. Also, the National Institute Of Health's (NIH) director announced that they are going to optimise their work to include addiction research with NIH's Scientific Management Review Board (SMRB).The NIH's working group on Substance Use, Abuse, and Addiction (SUAA) also recommended establishing a new institute to work on such research to focus. This shows that it is important to focus on addiction research. [56][57][58]

References:

1. Asam's 2019 definition of addiction. (n.d.). Retrieved June 29, 2022, from [https://www.asam.org/docs/default-source/quality-science/asam's-2019-definition-of-addiction-\(1\).pdf?sfvrsn=b8b64fc2_2](https://www.asam.org/docs/default-source/quality-science/asam's-2019-definition-of-addiction-(1).pdf?sfvrsn=b8b64fc2_2)
2. Addiction vs. dependence. Addiction Center. (2021, December 13). Retrieved June 29, 2022, from <https://www.addictioncenter.com/addiction/addiction-vs-dependence/>
3. World Health Organization. (n.d.). World Health Organization. Retrieved June 29, 2022, from <https://icd.who.int/browse11/l-m/en>
4. Raypole, C. (2020, February 28). Types of addiction and how they're treated. Healthline. Retrieved June 29, 2022, from <https://www.healthline.com/health/types-of-addiction>
5. Encyclopædia Britannica, inc. (n.d.). Chemical dependency. Encyclopædia Britannica. Retrieved June 29, 2022, from <https://www.britannica.com/science/chemical-dependency>
6. Vasiliu, O. (1AD, January 1). *Current status of evidence for a new diagnosis: Food addiction-A literature review*. *Frontiers*. Retrieved June 29, 2022, from <https://www.frontiersin.org/articles/10.3389/fpsy.2021.824936/full>
7. Substance use disorder —level 2 cause - the lancet. (n.d.). Retrieved June 29, 2022, from <https://www.thelancet.com/pb-assets/Lancet/gbd/summaries/diseases/anxiety-disorders.pdf>
8. Global burden of disease (GBD 2019). Institute for Health Metrics and Evaluation. (2020, December 9). Retrieved June 29, 2022, from <https://www.healthdata.org/gbd/2019>
9. Number of deaths per year. Our World in Data. (n.d.). Retrieved June 29, 2022, from <https://ourworldindata.org/grapher/number-of-deaths-per-year>
10. Ritchie, H., & Roser, M. (2019, December 5). Drug use. Our World in Data. Retrieved June 29, 2022, from <https://ourworldindata.org/drug-use>
11. Daley, D. C. (2013, December). Family and social aspects of substance use disorders and treatment. *Journal of food and drug analysis*. Retrieved June 29, 2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4158844/>
12. Alavi, S. S., Ferdosi, M., Jannatifard, F., Eslami, M., Alaghemandan, H., & Setare, M. (2012, April). Behavioral addiction versus substance addiction: Correspondence of psychiatric and psychological views. *International journal of preventive medicine*. Retrieved June 29, 2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3354400/>
13. Potenza M. N. (2013). Biological contributions to addictions in adolescents and adults: prevention, treatment, and policy implications. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*, 52(2 Suppl 2), S22–S32. <https://doi.org/10.1016/j.jadohealth.2012.05.007>
14. Cooper, J. (n.d.). Impulsive behavior: When is it an issue? WebMD. Retrieved June 29, 2022, from <https://www.webmd.com/mental-health/what-is-impulsivity>
15. Ewald DR, Strack RW, Orsini MM. Rethinking Addiction. *Global Pediatric Health*. January 2019. doi:10.1177/2333794X18821943
16. Social determinants of drug use - national drug and alcohol research centre. (n.d.). Retrieved June 29, 2022, from <https://ndarc.med.unsw.edu.au/sites/default/files/ndarc/resources/TR.228.pdf>
17. Social determinants and the health of drug users: Socioeconomic status ... (n.d.). Retrieved June 29, 2022, from https://www.researchgate.net/publication/11031710_Social_Determinants_and_the_Health_of_Drug_Users_Socioeconomic_Status_Homelessness_and_Incarceration
18. Roberts, B., Felix Ocaka, K., Browne, J., Oyok, T., & Sondorp, E. (2011). Alcohol disorder amongst forcibly displaced persons in northern Uganda. *Addictive Behaviors*, 36(8), 870–873. <https://doi.org/10.1016/j.addbeh.2011.03.006>
19. Ezard, N., Oppenheimer, E., Burton, A., Schilperoord, M., Macdonald, D., Adelekan, M., Sakarati, A., & van Ommeren, M. (2011). Six rapid assessments of alcohol and other substance use in populations displaced by conflict. *Conflict and Health*, 5(1). <https://doi.org/10.1186/1752-1505-5-1>
20. U.S. Department of Health and Human Services. (2021, April 13). Part 1: The connection between Substance Use Disorders and mental illness. National Institutes of Health. Retrieved

- June 29, 2022, from <https://nida.nih.gov/publications/research-reports/common-comorbidities-substance-use-disorders/part-1-connection-between-substance-use-disorders-mental-illness>
21. SDG3: Good health and well-being. United Nations : Office on Drugs and Crime. (n.d.). Retrieved June 29, 2022, from <https://www.unodc.org/unodc/en/about-unodc/sustainable-development-goals/sdg3 -good-health-and-well-being.html>
 22. World Health Organization. (n.d.). Towards an action plan on alcohol. World Health Organization. Retrieved June 29, 2022, from <https://www.who.int/teams/mental-health-and-substance-use/alcohol-drugs-and-addictive-behaviours/alcohol/our-activities/towards-and-action-plan-on-alcohol>
 23. What is harm reduction? Harm Reduction International. (n.d.). Retrieved June 29, 2022, from <https://www.hri.global/what-is-harm-reduction>
 24. Centers for Disease Control and Prevention. (2019, May 23). Syringe Services Programs (ssps) fact sheet. Centers for Disease Control and Prevention. Retrieved June 29, 2022, from <https://www.cdc.gov/ssp/syringe-services-programs-factsheet.html>
 25. *Overdose prevention centers - drug policy alliance*. (n.d.). Retrieved June 29, 2022, from https://drugpolicy.org/sites/default/files/overdose-prevention-centers_0.pdf
 26. (PDF) how can sociological theory help our understanding ... - researchgate. (n.d.). Retrieved June 29, 2022, from https://www.researchgate.net/publication/9079643_How_Can_Sociological_Theory_Help_Our_Understanding_of_Addictions
 27. (PDF) therapeutic communities for addictions: A ... - researchgate. (n.d.). Retrieved June 29, 2022, from https://www.researchgate.net/publication/14643936_Therapeutic_Communities_for_Addictions_A_Theoretical_Framework
 28. Treatment approaches for drug addiction - nida.nih.gov. (n.d.). Retrieved June 29, 2022, from https://nida.nih.gov/sites/default/files/if_treatment_approaches_2009_to_nida_92209.pdf
 29. Cognitive behavioral therapy. Addiction Center. (2022, June 20). Retrieved June 29, 2022, from <https://www.addictioncenter.com/treatment/cognitive-behavioral-therapy/>
 30. Rowe, C. L. (2010, July). Multidimensional family therapy: Addressing co-occurring substance abuse and other problems among adolescents with comprehensive family-based treatment. *Child and adolescent psychiatric clinics of North America*. Retrieved June 29, 2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2916747/>
 31. Motivational interviewing. Addiction Center. (2022, June 20). Retrieved June 29, 2022, from <https://www.addictioncenter.com/treatment/motivational-interviewing/>
 32. Contingency management (CM). Recovery Research Institute. (2019, June 17). Retrieved June 29, 2022, from <https://www.recoveryanswers.org/resource/contingency-management/>
 33. World Drug Report 2021. United Nations : Office on Drugs and Crime. (n.d.). Retrieved June 29, 2022, from <https://www.unodc.org/unodc/data-and-analysis/wdr2021.html>
 34. Inability to access addiction treatment predicts injection initiation ... (n.d.). Retrieved June 29, 2022, from https://www.researchgate.net/publication/289490783_Inability_to_access_addiction_treatment_predicts_injection_initiation_among_street-involved_youth_in_a_Canadian_setting
 35. World Drug Report 2019: 35 million people worldwide suffer from drug use disorders while only 1 in 7 people receive treatment. United Nations : Office on Drugs and Crime. (n.d.). Retrieved June 29, 2022, from <https://www.unodc.org/unodc/en/frontpage/2019/June/world-drug-report-2019 -35-million-people-worldwide-suffer-from-drug-use-disorders-while-only-1-in-7-people-receive-treatment.html?ref=fs1>
 36. Acevedo, A., Garnick, D. W., Lee, M. T., Horgan, C. M., Ritter, G., Panas, L., Davis, S., Leeper, T., Moore, R., & Reynolds, M. (2012). Racial and ethnic differences in substance abuse treatment initiation and engagement. *Journal of ethnicity in substance abuse*. Retrieved June 29, 2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3699873/>
 37. van Boekel LC;Brouwers EP;van Weeghel J;Garretsen HF; (n.d.). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. *Drug and alcohol dependence*. Retrieved June 29, 2022, from <https://pubmed.ncbi.nlm.nih.gov/23490450/>

38. J., H. V. H. (n.d.). Inpatient staff perceptions in providing care to individuals with co-occurring mental health problems and illicit substance use. *Journal of psychiatric and mental health nursing*. Retrieved June 29, 2022, from <https://pubmed.ncbi.nlm.nih.gov/21078001/>
39. Farrugia A;Pienaar K;Fraser S;Edwards M;Madden A; (n.d.). Basic care as exceptional care: Addiction stigma and consumer accounts of Quality Healthcare in Australia. *Health sociology review : the journal of the Health Section of the Australian Sociological Association*. Retrieved June 29, 2022, from <https://pubmed.ncbi.nlm.nih.gov/34018910/>
40. Health Care Systems and substance use disorders - NCBI BOOKSHELF. (n.d.). Retrieved June 29, 2022, from <https://www.ncbi.nlm.nih.gov/books/NBK424848/>
41. MS;, B. (n.d.). A review of quantitative studies of adherence to Mental Health Clinical Practice Guidelines. *Harvard review of psychiatry*. Retrieved June 30, 2022, from <https://pubmed.ncbi.nlm.nih.gov/12023929/>
42. Institute of Medicine (US) Committee on Crossing the Quality Chasm: Adaptation to Mental Health and Addictive Disorders. *Improving the Quality of Health Care for Mental and Substance-Use Conditions: Quality Chasm Series*. Washington (DC): National Academies Press (US); 2006. 1, The Quality Chasm in Health Care for Mental and Substance-Use Conditions. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK19823/>
43. Dual diagnosis. Addiction Center. (2022, June 13). Retrieved June 30, 2022, from <https://www.addictioncenter.com/addiction/dual-diagnosis/>
44. Mental Health Promotion & Addictions Prevention. (n.d.). Retrieved June 29, 2022, from <https://westernhealth.nl.ca/uploads/Addictions%20Prevention%20and%20Mental%20Health%20Promotion/HP%20Strategy%20-%20MHA%20-%20March%202019%20FINAL.pdf>
45. World Health Organization. (n.d.). Good policy and practice in Health Education: Education sector responses to the use of alcohol, tobacco and Drugs. World Health Organization. Retrieved June 30, 2022, from <https://www.who.int/publications/i/item/9789231002113>
46. Handbook on Youth Participation in Drug Prevention Work. (n.d.). Retrieved June 29, 2022, from https://www.unodc.org/res/prevention/youth-initiative/resources-new_html/Handbook_on_Youth_Participation.pdf
47. Perspectives on drugs mass media campaigns for ... - www.emcdda.europa.eu. (n.d.). Retrieved June 29, 2022, from https://www.emcdda.europa.eu/system/files/publications/2743/att_212357_EN EMCDDA POD_2013_Mass%20media%20campaigns.pdf
48. Cambridge University Press. (n.d.). The stigma of Substance Use Disorders. Cambridge Core. Retrieved June 30, 2022, from <https://www.cambridge.org/core/books/stigma-of-substance-use-disorders/556253201C024D91E5A21644BAE83071>
49. Volkow, N. D., Interview with Dr. Nora Volkow on stigma against people who use drugs and its effects on care delivery and the burden of substance use disorders. (11:26), Author AffiliationsFrom the National Institute on Drug Abuse, Interview with Dr. Nora Volkow on stigma against people who use drugs and its effects on care delivery and the burden of substance use disorders. (11:26), Barry, E. E. M. G. and C. L., Panzer, C. A. S. and J., Friese, D. K. C. and C. R., Others, C. A. S. and, N. P. Hachmann and Others, Editors, T., & H. N. Altarawneh and Others. (2020, April 2). Stigma and the toll of addiction: *Nejm*. *New England Journal of Medicine*. Retrieved June 30, 2022, from <https://www.nejm.org/doi/full/10.1056/NEJMp1917360>
50. Carroll, J., Goodair, C., Chaytor, A., Notley, C., Ghodse, H., & Kopelman, P. (2014, February 17). Substance misuse teaching in undergraduate medical education - *BMC medical education*. *BioMed Central*. Retrieved June 30, 2022, from <https://bmcmmededuc.biomedcentral.com/articles/10.1186/1472-6920-14-34>
51. Five experiential learning activities in Addictions Education. (n.d.). Retrieved June 29, 2022, from https://www.researchgate.net/publication/271672161_Five_Experiential_Learning_Activities_in_Addictions_Education
52. Armaos, R. (2019, December 7). Medical students' training needs and attitudes on substance abuse: Implications for medical education in Greece. *Drugs: Education, Prevention and Policy*. Retrieved June 30, 2022, from https://www.academia.edu/41211151/Medical_students_training_needs_and_attitudes_on_substance_abuse_implications_for_medical_education_in_Greece
53. Addiction in medical professionals. Addiction Center. (2022, June 20). Retrieved June 30, 2022, from <https://www.addictioncenter.com/addiction/medical-professionals/>

54. Kenna, G. A., & Lewis, D. C. (2008, January 29). Risk factors for alcohol and other drug use by healthcare professionals. Substance abuse treatment, prevention, and policy. Retrieved June 30, 2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2265282/>
55. U.S. Department of Health and Human Services. (2022, February 16). Health Professions Education. National Institutes of Health. Retrieved June 30, 2022, from <https://nida.nih.gov/nidamed-medical-health-professionals/health-professions-education>
56. U.S. Department of Health and Human Services. (2022, June 13). Addiction science. National Institutes of Health. Retrieved June 30, 2022, from <https://nida.nih.gov/drug-topics/addiction-science>
57. Center for Addiction Research. Psychiatric Research Institute (PRI). (n.d.). Retrieved June 30, 2022, from <https://psychiatry.uams.edu/research/center-for-addiction-research/>
58. U.S. Department of Health and Human Services. (n.d.). Integrating our substance use, abuse, and addiction research efforts. National Institutes of Health. Retrieved June 30, 2022, from <https://nexus.od.nih.gov/all/2012/11/16/integrating-our-substance-use-abuse-and-addiction-research-efforts/>