Inter·GLAM Deliverable 4.1

Five thematic background documents

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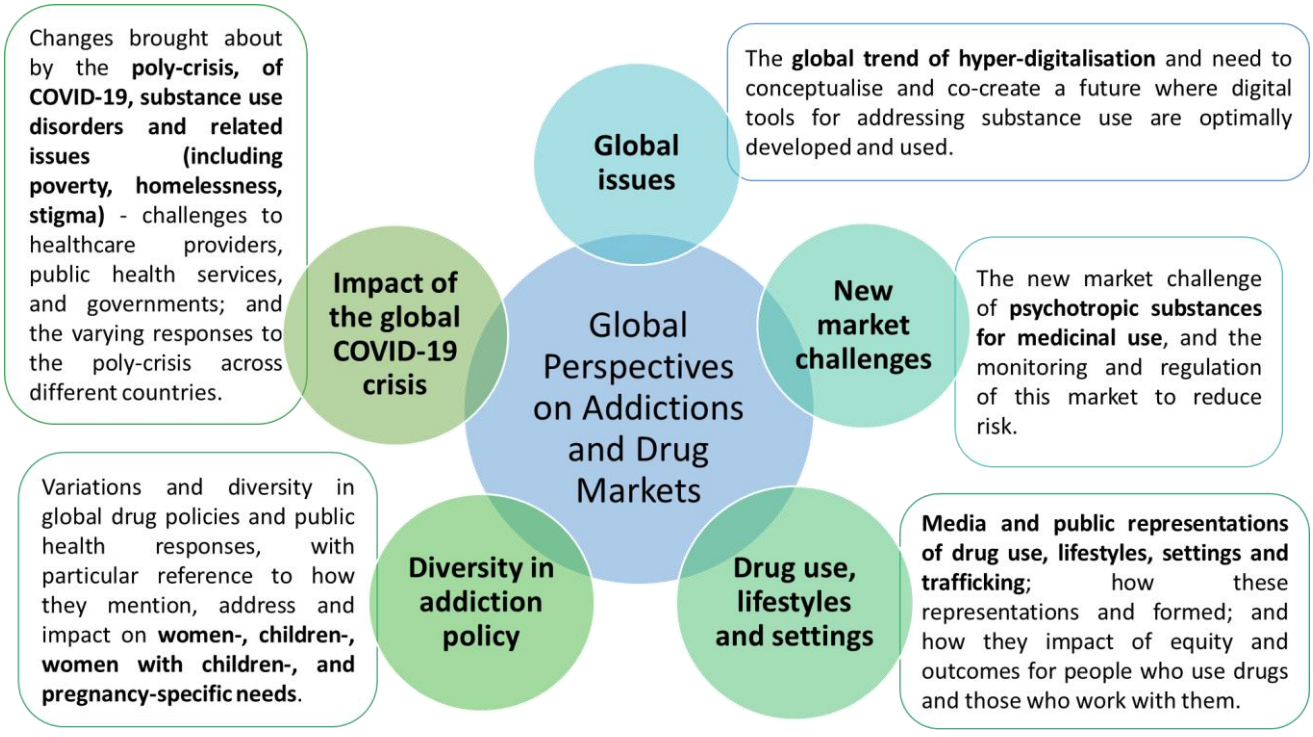
EXECUTIVE SUMMARY

Drug use is an increasing lifestyle trend worldwide; and addiction and the poly-criminality of the drug market constitute a virtually global health and socioeconomic problem. Exponentially growing globalisation also facilitates trade. Furthermore, there have been recent developments in context: The global COVID pandemic and geopolitical developments will cause more recent disruptions and shifts in drug use and transit operations which require updated analysis.

The work of the Inter·GLAM project was broadly themed around the geographic, political, economic and crime-related interlinks, interrelations and co-influences, related to the drug trafficking routes, drug use patterns and demand, drug policies, and care and harm-reduction responses across different global regions - Europe, Latin America and the Caribbean, Africa, Asia and the Middle East.

Between May 2022 – June 2023, Inter·GLAM created and supported 5 global topical working groups, comprising multi-sectoral research professionals (from civil society, academia, public policy, and clinical groups) from around the world, representing organisations in Europe, Latin America and the Caribbean, Africa, Asia and the Middle East; to participate in multiple, regular, online meetings, and co-creation actions to identify through consensus the main issues and key research questions, contribute technical insight to Lisbon Addictions 2022, and to plan and develop research action and briefing texts in the five themes in the areas of drug trafficking, use, addiction and health responses.

The current report draws together the work developed in 5 research areas identified by the Inter·GLAM working groups, each representing a specific knowledge gap that was identified and addressed through the course of the group work:



Eight overarching cross-cutting themes emerge from the co-creation and synthesis of these 5 briefing reports, which can be summarised in the points below:

Stakeholder diversity	There is great value in bringing together a diverse range of stakeholders, from different sectors, career stages and geographical backgrounds, to exchange perspectives and investigate a specific research question
COVID-19	The pandemic brought about unprecedented challenges and also opportunities – accelerating digitalisation, creating global representations, interacting with other ongoing crises impacting on substance use, markets and addictions.
Ethical frameworks led by PWUD	There is a significant need to develop ethical frameworks to govern the use of various technologies, and the representations and information they relay, ranging from social media to artificial intelligence. These can only be developed by groups including people who use drugs and addiction services.
Industry involvement and commercial determinants of health	There are numerous commercial interests in addiction and a number of industries to consider – tech, media, and addictive products, such as alcohol. "Shared value" investments and collaborations between industry and public health remain contentious issues.
Responsible communication	There is a need for caution in reporting on a number of areas relating to drug use and markets – from outcomes and risks in use of psychoactive substances for medical purposes, to the fictional representations of people who use and sell drugs, to factual reporting on the contexts of drug markets in mainstream media, and accurate harm reduction advice on social media. Reporting and communication guidelines with highly practical examples can help in this regard.
SUD treatments	Unmet treatment needs are high for substance use disorders (SUDs), and (co-morbid) psychiatric disorders, and outcomes are variable. Future research needs to consider: Psychedelic-assisted Psychotherapies (PAP); Critical thought and initiatives to address past gender biases in biomedical treatments; Co-creation of services with young people who use drugs, and experts by experience; Flexibility is key to facilitating uptake and maintenance of life-saving medical care.
Stigma	intersecting stigma and discrimination impact on health outcomes, exacerbating gendered and social health inequalities, reducing treatment compliance and confounding the health gains and outcomes of well-meant policy and practice. Initiatives exist to improve representations and reduce discrimination: a) In mainstream media – guidelines and co-creation initiatives to improve press activity and reporting; b) In social media - advocacy for the digital rights of harm-reduction content creators to represent drug use accurately can improve the educational value and uptake of such information; c) In society – Lived Experience Recovery Organisation show the value of those with lived experience as assets to promote recovery and societal cohesion; d) policy – As well as increasing compliance with gender-sensitive policy guidelines, ultimately, decriminalisation of drug use and adoption of a health promotion approach in legislation will shift representations and reduce stigma.
Geographical diversity	Is a double-edged sword: a) involving professionals from diverse academic and research backgrounds and expertise, from diverse cultures and different continents, to compare policy documents, pilot interventions or develop other material aimed at regulation, can produce insight to help policymakers update and adapt national policies and practices for greater effectiveness; b) However, most interventions and plans are first 'tested' in high-income countries - Research and funding bodies must consider how they can support changing and emerging knowledge, particularly in low- and middle-income countries, where such innovations may be limited due to a lack of funding.

INTRODUCTION

Drug use is an increasing lifestyle trend worldwide; and addiction and the poly-criminality of the drug market constitute a virtually global health and socioeconomic problem. Exponentially growing globalisation also facilitates trade.

Furthermore, there have been recent developments in context: The global COVID pandemic and geopolitical developments will cause more recent disruptions and shifts in drug use and transit operations which require updated analysis.

One of the main objectives of **Inter·GLAM** was to co-produce and deliver a thematic track for the Lisbon Addictions 2022 Conference "Global Addictions" (LX22), with selected global stakeholders from different continents and regions - Europe, Latin America and the Caribbean, Africa and the Middle East - in coordination with the organising committee of the LX22 conference.

The work of the project was broadly themed around the geographic, political, economic and crime-related interlinks, interrelations and co-influences, related to the drug trafficking routes, drug use patterns and demand, drug policies, and care and harm-reduction responses across these different global regions.

To define the track and move forward international research in these areas, the project coordinated a large number of multi-disciplinary professionals to develop thematic pieces – briefing documents, bespoke conference sessions and peer-reviewed publications – in key future-looking topics contributing to the overall theme of the global drug use and markets.

DESCRIPTION

Evolution of the work

As explained in section 1.2 of the mid-term report, the original Inter·GLAM workplan proposed carrying out one tri-continental 30-member working group and two in-person continental workshops; which was expanded to result in 5 global topical working groups, and multiple, regular, online meetings to identify the main issues and key research questions, contribute technical insight to Lisbon Addictions 2022, and to plan and develop research action and briefing texts in the five themes.

Thus, the background document deliverable has been upgraded to include one open access publication or thematic brief for each globally relevant topic (a total of 5 thematic pieces), as a result of the preparatory work, contents presented and interactive debates which took place at the Lisbon Addictions conference sessions specifically co-produced or sponsored by the Inter·GLAM working groups.

The 5 Inter·GLAM themes

The overarching Inter·GLAM topic covers **five themes**:

- Global issues: how are socio-demographic, technological, political, environmental and other global challenges impacting on substance use, associated problems and markets?
- New market challenges: market flows, novel and new psychoactive substances and medicinal products.
- Drug use, lifestyles and settings: socio-cultural contexts and physical environments, voices from impacted communities.

- Recognising global diversity in public health and policy responses; putting evidence into practice in different cultures and settings (translational aspects and transferability).
- Impact of the global public health crisis (i.e., the COVID-19 pandemic) on the addictions field.

Development and process of the Inter·GLAM Working Groups

The INTER·GLAM coordinating team prepared an initial brief description of each topic for recruitment purposes. A total of 111 applications from 42 countries were received for participating in the working groups. All applicants were invited to join the working group(s) they applied to. Of those invited, between 12-16 per group attended the initial meetings, and contributed to shaping the lines of work for Inter·GLAM.

The coordinating team identified and recruited two co-chairs from the recruited members in each group, mindful of gender and geographic diversity, and proposed a draft workplan schedule to each working group, with one coordinating team member acting as designated 'facilitator' and overseeing each group. The coordinating team facilitator supported the logistics of the organisation of all meetings in each group, and the general progress in the work.

Each group comprised between 13-17 'active' (i.e., contributing to the final outputs) multisectoral members, which met between 6-18 times in developing the outputs. A variety of tools and methods were used for the online/remote collaboration to develop the work (e.g., Google document sharing, *Slido* live brainstorming and polls, OPERA methodology, WhatsApp group for coordination).

This document

The current report draws together the work developed in 5 research areas identified by the Inter·GLAM working groups, each representing a specific knowledge gap:

- The global trend of hyper-digitalisation and need to conceptualise and co-create a future where digital tools for addressing substance use are optimally developed and used co-create a future where digital tools for addressing substance use are optimally developed and used.
- The new market challenge of psychotropic substances for medicinal use, and the monitoring and regulation of this market to reduce risk.
- Media and public representations of drug use, lifestyles, settings and trafficking; how these representations and formed; and how they impact of equity and outcomes for people who use drugs and those who work with them.
- Variations and diversity in global drug policies and public health responses, with particular reference to how they mention address and impact on women-, children-, women with children-, and pregnancy-specific needs.
- How the poly-crisis, of COVID-19, substance use disorders and related issues (including poverty, homelessness, stigma) has posed challenges to healthcare providers, public health services, and governments; and the varying responses to the poly-crisis across different countries.

In the following sections you can see the detailed documents for each of these topics and the final discussion drawing overall conclusions from the Inter·GLAM co-creation work.

THEME 1: Global socio-demographic, technological, political, environmental issues

Background: Overview and aim of the group

Rapid changes in society, planetary issues, and new technologies are having an impact on drug use, the profiles of drug users and the drug market. Who uses drugs, and how and where drugs are made, distributed and used is constantly changing; affected by intersecting global factors such as hyper- digitalization, migration, climate change and crises such natural disasters, medical outbreaks and political instability.

This working group (WG1) looked at these and other factors, where they intersect at the global level and their impact on individuals in different parts of the world. Specifically, the group identified a future-oriented research and knowledge gap arising from the rapid digitalisation of services in the field of substance use and substance use disorders, as catalysed by the lockdown measures introduced during the COVID-19 pandemic in conjunction with the global hyper-digitalisation trend.

The overarching aim of the group was to analyse substance use disorders as a global issue:

- Discuss substance use disorders as a global healthcare issue;
- Define the three most relevant subtopics regarding SUDs as a global issue;
- Explore the global health issues associated with the three identified subtopics: digitalisation, sociopolitical issues, and drug policy;
- Define several recommendations for healthcare professionals, policy makers, researchers and other relevant stakeholders related to the selected topics and to move forward with the consideration of addiction as a global issue.

The addiction field, encompassing both substance use trends and treatment of health problems, has been variously impacted by digitalisation in recent times. Digital services have been increasingly used for the sale and acquisition of illicit substances.[1,2,3,4] In parallel, there has been a proliferation of digital tools for prevention and treatment of substance use disorders (SUDs), including: apps,[5] algorithms,[6] chatbots,[7] dashboards,[8] and new service delivery modalities.[9,10,11,12]

The digitalisation of SUD services brings with it the promise of better maintained access to treatment and more efficient distribution of limited clinical expertise through, for example, telemedicine and data linkage studies.[13] However, the majority of regulation and control of technologies and online data (e.g., apps and social media data) is led by large, multi-national, for-profit companies, with responsibilities to shareholders, rather than by health authorities and experts; which raises serious questions about outcome priorities, content moderation and its impact on the quality of service provision in the field.[14]

The COVID-19 pandemic provided a clear real-life example of the speed at which changes can be brought about by technology in health care, with the rapid and widespread adoption of telemedicine,[15] data sharing,[16] data visualisation,[17] app use,[18] chatbots,[19] and health promotion communication through social media.[20]

However, it also threw into sharp focus a number of issues which need to be addressed before digital technologies can be deployed optimally, including: a varied lack of access/ the 'digital divide' (i.e., unequal access to the internet and/or internet-capable devices)[21]; the moderation of content on social media and the internet (e.g., misinformation, disinformation)[22]; and digital literacy issues[23], particularly among non-digital native generations[24] and the extent to which individual health technologies are interoperable and inform the global health picture of individuals and communities.[25]

Back-casting exercises (BCEs) are a foresight method used to address complex and persistent or entrenched problems where change is deemed necessary. Substance use and substance use disorders can be considered such a 'wicked problem'[26] due to its heavily politicised nature,[27] criminalisation of the behaviour, and challenges to the legitimacy of the complex healthcare issues faced by of people who use drugs.[28,29] Furthermore, structural inequalities and racism exacerbate the impact of SUDs on individual health, access to treatment and differences in outcomes across communities and racial lines.[30] Addressing the issues associated with services and policy responses to this phenomenon requires specific approaches, taking into consideration the multitude of stakeholders with different (and sometimes opposing) values, institutional complexity and gaps in existing knowledge.[31]

Methodology: Process to develop the briefing document*

The methodology to develop the briefing paper in this theme had 3 main steps:

1. A narrative review for major issues around three subtopics: digitalisation, sociopolitical issues, and drug policy;
2. Preparation of the materials, scenarios and process for the foresight exercise using open-source tools;
3. A "back-casting" exercise (BCE) held as part of the Lisbon Addictions conference to identify the necessary steps to achieve optimal use of digital tools in the addiction field.

Narrative review

The three main subtopics to be reviewed in order to conceptualise addiction as a global health issue were defined through online discussion and group work over the first 2 meetings of the working group. The three sub-topics identified through a process of discussion and were: *1) digitalisation, 2) sociopolitical issues, and 3) drug policy*.

The working group consisted of 16 members (Female: 5, Male: 11, Other: 0) from 15 different countries worldwide, and representing academic, civil society, policy and clinical profile organisations. Members of the working group subsequently divided into 3 smaller groups to each carry out scoping searches to identify the most relevant research questions and corresponding information on one of the defined subtopics, and prepare part of the review on the subtopic. These contributions were then jointly reviewed to produce a first version of the narrative review during the Summer of 2022.

Preparation of materials and process with Open Science Framework (OSF)

the main objective of the BCE is to reach consensus validate or refine and thereby collaboratively determine the current scenario, desired future scenario, key values, challenges, facilitators, cornerstones and milestones, by mapping the steps backwards from an ideal future to the current perceived scenario. The overall aim is to illuminate a clear path to the desired outcome. To carry out this exercise, preparatory work is required to draft the exercise components for discussion. Open Science Framework (OSF), was used both in advance and after the in-person workshop for online collaboration. OSF has been promoted in addiction research[32] to enhance

* For a full account of this work, please see: Scheibein F, Caballeria E, Taher MA, Arya S, Bancroft A, Dannatt L, De Kock C, Chaudhary NI, Gayo RP, Ghosh A, Gelberg L, Goos C, Gordon R, Gual A, Hill P, Jeziorska I, Kurcevič E, Lakhov A, Maharjan I, Matrai S, Morgan N, Paraskevopoulos I, Puharić Z, Sibeko G, Stola J, Tiburcio M, Tay Wee Teck J, Tsereteli Z, López-Pelayo H (in press) Optimising digital tools for the field of substance use and substance use disorders: a backcasting exercise. JMIR Human Factors. 12/08/2023:46678 (forthcoming)

replicability[33] and to reach consensus on definitions.[34] In this project, OSF was used to overcome limited in-person meeting time available for the conduct of this exercise.

Preparation of materials: A dedicated OSF page was set up to work collectively on the draft components of the BCE, such as the methodology/participant instructions; elements for discussion and working materials for the exercise: current scenario; an ideal desirable 2030 scenario unbounded by circumstances, limitations, barriers etc.; values, challenges and facilitators and a series of mini scenarios to introduce **five distinct key areas** identified in the narrative review work: (i) *Online advertising, marketing and health promotion*; (ii) A*vailability, implementation and sustainability of digital services*; (iii) *Innovations in digital tools*; (iv) *Data privacy, data sharing and digital rights* and (v) *Online outreach with hidden populations*. A pre-designed canvas for working in the BCE was also developed. All components were subject to comment and feedback by Inter·GLAM Working Group members and experts beyond WG1 in the fields of substance use service delivery, advocacy, academia and policy. This included people who primarily identified as clinicians (n=8), researchers (n=8), NGO representatives (n=7), statutory authorities (n=2) and a PWUD (n=1) (several participants belonged to two or more categories).

Preparation of the participant group: BCEs should involve all key stakeholders for a given topic (for example, people who use drugs [PWUD], researchers, clinicians and policymakers) to cover topics such as ethics, human rights, effectiveness, sustainability and effective long-term guidelines. Key stakeholders were identified by the working group, invited to participate in the preparatory stage, consulted and engaged at the 2022 Lisbon Addiction Conference, along with an open invitation to all conference participants (respecting limitations on participation given the size of the work space).

Back-casting Exercise (BCE)

The Inter·GLAM BCE followed a similar methodology to that adopted to explore the development of a standard joint unit,[35] aiming to confirm and define the current scenario, future scenario, values, challenges and facilitators as well as key milestones and cornerstones on the projected journey towards consensus. The BCE took place in a 90-minute session in the frame of the 2022 Lisbon Addictions Conference, with follow-up work via OSF.

Introduction - The first part of the in-person session was used to explain the objectives, methodology and expected outcomes of the exercise in a whole-group setting. A description of the current scenario and a future ideal desirable 2030 scenario were presented to the participants, and time was allocated for questions and revision of the scenarios.

Prioritising relevant areas - Participants were allocated to small multi-disciplinary working groups, each focusing on different aspects of digital tool optimisation. The participants included people who use drugs (PWUDs), service providers, NGO advocacy groups members and policymakers, with 5-6 people forming a small group. Stakeholders were provided with three printed lists of items relevant to optimising digital tools to address substance use in three domains: Values, Challenges and Facilitators (see Table 1 for definitions).

Table 1

Term	**Definition**
Values	Beliefs, attitudes and principles that may guide decision making processes whilst shaping the desired future

Challenges	Obstacles, barriers or difficulties that may need to be overcome to achieve the desired future
Facilitators	Resources, capabilities, and conditions that support and enable progress towards the desired future state

The lists included definitions for each concept. Participants could also propose new items or suggest the revision of provided definitions. Each small group was instructed to choose by consensus the five most relevant concepts from each domain and record them on a flipboard. These concepts were then reported and discussed in the plenary settings. Subsequently, the primary facilitator developed consensus through discussion in a plenary discussion to identify five key Values, Challenges and Facilitators. The participants could then further refine the concepts definitions on the Open Science Framework page after the in-person event.

Back-cast trajectories - Each group focused on a specific key area of the bigger desirable future scenario, and was provided with a mini scenario associated with their specific key area:

(i) *Online advertising, marketing and health promotion*;
(ii) A*vailability, implementation and sustainability of digital services*;
(iii) *Innovations in digital tools*;
(iv) *Data privacy, data sharing and digital rights* and
(v) *Online outreach with hidden populations*.

The participants were asked to deconstruct the route starting from the end point in 2030 and moving towards the present, using the pre-designed canvas to facilitate the exercise. At the end of the exercise, the results were briefly discussed with other members of the workshop.

Defining cornerstones and milestones - based on reflections during the exercise and the professional and personal background of the participants, a discussion was held within each working group regarding the milestones necessary for reaching the 2030 goals.

Post BCE work - As a final step, key terms and definitions were collated on Open Science Framework using open Google documents to enable further work and finalisation. These documents were circulated amongst those interested in further revision and discussion through the use of comments leading to a series of iterative revisions and definitions, and culminating in the final results of the exercise.

The back-casting exercise results have been written up and submitted as a peer-reviewed publication to the Journal of Medical Internet Research ([36] acceptance and publication pending).

Results, Conclusions and Key message on Theme 1

As outcomes of the BCE, and subsequent work in OSF, the expert stakeholders identified the five most important values, challenges and facilitators for achieving the 2030 goals in optimal implementation of digital tools to address substance use, as well as a number of milestones and cornerstones necessary for achieving them; which can be formulated into roadmaps for future policy, practice and research.

Values

Five key values regarding digital tools to address substance use were identified by the group: (1) Digital Rights; (2) Evidence-base; (3) User-friendliness; (4) Access/Availability and (5) Person-Centredness.

(1) Digital rights - Digital rights are important in the context of ongoing debates around content moderation on social media; such as, for example, the content blocking that some harm reduction organisations experience while delivering services and providing information online. Moreover, digital rights were highlighted in the context of the development of AI-led screening and identification of people for addiction treatment; as well as the potential use of digital technologies to identify people who use drugs by governments who do not comply with UN human rights guidelines. The main goal of this value is to ensure that digital tools are used in a way that ethical, safe and secure to benefit individual citizens and populations.

(2) Evidence based - The experts emphasised the importance of knowledge production and founding interventions in the field of substance use on available reliable and high-quality evidence. However, current scientific methods (e.g., the 'gold standard' of randomised clinical trials / RCTs) may not be suitable to develop the evidence base for rapidly evolving digital innovations; and new paradigms such as the Sequential Multiple Assignment Randomised Trial (SMART)[37] or other research methodologies may be more suitable (for example, decentralised clinical trials using federated learning[38,39]). A discussion also emerged on how to address and manage the wide prevalence of misinformation and disinformation related to substance use online, which merits further consideration in future research.

(3) User-friendliness - User-friendly and ergonomic design of digital tools was another value highlighted. It is well-known that the user friendliness of digital tools can impact their uptake, long term use and effectiveness. Key requirements identified to enhance usability included: being able to cater for the diverse needs of heterogeneous groups of PWUDs with varying needs, language requirements and cultural contexts.

(4) Access/availability - The digital divide (understood as unequal access to digital technology) and low digital literacy (a person's ability to collect and assess information and engage with digital tools) continue to be significant barriers for substantial parts of the global population. According to the expert participants, people in some regions of the world (most notably, lower-income countries) continue to lack access to the internet, mobile phones, tablets and laptops, and new technologies requiring more advanced equipment (e.g., virtual reality devices), which will likely pose new barriers to delivering and accessing standardised digital interventions across different contexts or population groups.

(5) Person-centredness - The heterogeneity of needs among PWUD and individuals living with SUDs was another issue recognised by the group. Needs may be specific to particular substances, polysubstance use combinations, different routes of administration, populations or environments; they may involve the parallel treatment of other (mental) health issues and/or chronic conditions; may require addressing upstream social determinants of health and economic disadvantages (e.g., homelessness, poverty); and may require responsiveness to local situations (e.g., professional treatment availability; customs, norms and laws). In this heterogeneous context, experts argued that a person-centred approach should be adopted to the greatest possible extent.

Challenges

Five key challenges to adopting digital tools for SUDs were identified by the group: (1) Funding, (2) Regulations; (3) Commercialisation; (4) Lack of best practice models and (5) Digital literacy, access and reach.

(1) Funding **-** The sustainable funding of programmes, projects and the development of digital tools was identified as a key challenge across all small groups in the BCE, with precarity and instability of funding seen as a critical factor affecting long-term sustainability. Key aspects include the necessity of identifying sustainable sources of funding, but also ensuring that all funding meets ethical standards, particularly in the context of possible industry involvement. Significant scepticism was expressed of the motives of for-profit entities but it

was also argued that there can be "shared value" or mutual interests around projects (for example, digital tools which improve health and wellbeing but which are also profitable).

Current public funding models also pose additional challenges, such as funding not adequately allowing for effective business practices like market research (customer discovery etc.), but rather focusing on defining the population and features before the project begins. This means, unlike startups, it is difficult to pivot during a project to better address the need through a change in features or to switch to a different, more receptive population. Public funders may also be hesitant and/or resistant to fund certain types of technologies, for example, those related to harm reduction; this being seen as controversial or somehow potentially used to facilitate drug trade.

(2) Regulations – There have been several cases where harm reduction content has been removed from social media platforms under current platform regulation policies[40]. Concerns were also raised about predictive algorithms currently being developed to identify people with substance use disorders as "treatment ready",[41] which could be open to mis-use. Experts encouraged more extensive work with stakeholders (such as social media companies) in the field of content moderation, as well as advocacy efforts against current policies and laws which may restrict the access to information/advice. The roadmaps presented by the groups indicated that some of the first steps towards the future scenario should include defining the legal frameworks, data access rights, and data sharing agreements.

(3) Commercialisation – In considering examples of digital initiatives to tackle alcohol and gambling, experts expressed concern that commercial interest companies are likely to advertise and market substances online, especially to those at increased risk of substance use-related problems. The likely emergence of new licit industries (for example, 'Big Cannabis' and 'Big Psychedelics') and their potential involvement in aggressive marketing was deemed worth monitoring and proactively responding to. It was also discussed whether the development and commercialisation of digital tools should be done exclusively by health or governmental institutions or also by private companies. Ethical issues that could arise from big companies with economic interests while they also offer bigger funding opportunities.

(4) Lack of best practice models – There is a lack of availability of best practice examples for both developing and using digital tools for addictions (though attention was brought to emerging practices in the field of harm reduction such as Eurasian Harm Reduction Association's "*Recommendations for setting up online harm reduction services*"[42] and "*Peer-to-Peer Counsellor Manual for Online Counselling*"[43], and the guide "*Recommendations «Web – outreach for people who use drugs»*" developed by UNODC.[44] The lack of best practice was seen to negatively impact on quality assurance of services and highlighted the need for increased quality management. In this context, issues around the well-being of health and care workers working in the online space using digital SUD tools, and the need for new management protocols to work with such potentially remote workers were discussed.

(5) Digital literacy and access/reach – The multi-dimensional nature of digital inequalities and the digital divide were stressed, including the importance of focussing on particular dimensions for any given scenario and the development of an understanding of boundary setting and challenges. It was also highlighted that we must remain cognizant of the potential role of hybrid approaches and the use of digital environments as a medium or setting as well as a tool.

Digital literacy was highlighted as a key issue which may particularly affect non digital natives (for example, older people), other marginalised groups, as well as health sector representatives. In this context, disparity in terms of technology development, investment and accessibility between higher income and lower middle-income countries should be emphasised. The likely impact identified by the experts was primarily concerned

with people's access to services and their ability to critically analyse available information. In addition to low digital literacy, the digital divide was also identified as an obstacle for some people to engage in online services due to poor internet access, lack of computer devices, or due to the lack of access to modern newly emerging technologies (for example, virtual reality headsets).

Facilitators

Five key facilitators of adopting digital tools for addressing substance use were identified: (1) Scientific research, interoperable infrastructure and a culture of innovation; (2) Expertise; (3) Ethical funding; (4) User-friendly design and (5) Digital rights and regulations.

(1) Scientific research, interoperable infrastructure and a culture of innovation – There is a need for further collaboration between researchers, PWUDs, clinicians and advocacy groups in conducting research, developing infrastructure and the promotion of innovation in the field. It was acknowledged that multidisciplinary research needs to be conducted at all stages, from planning to execution to monitoring and evaluation; and also needs to be ensured that technologies and infrastructure are interoperable. The importance of multi-stakeholder involvement in innovations in the field, and a culture of innovation including lean/agile startup methods used in business, were also stressed.

(2) Expertise – The group highlighted the need to build capacity and expertise of developers and end users for digital tool development and use. This includes the development of *Expert Advisory Groups* composed of all key stakeholders, including PWUD, that would help monitor and oversee efforts in the field, for example, the co-creation of best practices and guidelines around cybersecurity, data sharing, content moderation and ethical use of artificial intelligence.

(3) Ethical Funding – A long discussion took place on the need for sources of ethical funding and the potential role of industry in the development of digital tools. Some experts indicated significant scepticism towards the involvement of for-profit entities and advocated for no industry involvement at all. Others argued for the involvement of industry where there was a 'shared value'(mutual interests) around wellbeing and health. A consensus was achieved that all funding should always be ethically grounded, with checks and balances in place.

(4) User-friendly design – All experts emphasised the importance of user-friendly design of digital tools for SU/SUD to enhance uptake, engagement/adherence, efficacy and efficiency. It was noted that the term and concept of 'user-friendliness' is rather generic, and its specific features will vary significantly depending on the characteristics of specific target groups (e.g., different age groups). However, some general and universal features of 'user-friendliness' mentioned by the experts included, for example, easiness of use, availability in local languages, the use of simple language and terms, lack of excessively elaborate text pieces, and accessibility for people with reading difficulties and/or cognitive difficulties that may or may not be drug-related. In terms of the tools' content, it was also advised to avoid scientific jargon and use common expressions instead (for example, use of street names rather than the chemical name of substances) to enhance clarity and understandability of information.

(5) Digital Rights and Regulations - For the optimal use of digital tools, working groups stressed the importance of digital rights ensured by the existence of appropriate regulations and laws that are rooted in equity and human rights principles. For example, it was considered extremely important to protect PWUD, service providers and other key actors' data privacy, confidentiality, right to transparent information and healthcare provision whilst also protecting them from harassment from automated technologies (for example, bots

detecting clients for susceptibility-to-treatment offers or engaging in other forms of predictive risk detection) and actions of malicious actors (for example, public authorities in jurisdictions violating human rights).

Cornerstones (Roadmap 2022-2030)

- *Ethical framework*

The expert participants proposed that an ethical framework should inform all work in the digital space. For example, it could guide social media operators on how to moderate content related to substance use, governments in creating appropriate regulations focused on the protection of individuals, as well as developers (either public or private entities) in the creation of digital tools.

- *Increasing access*

A range of focused and coordinated efforts should be undertaken to increase access to digital tools and reduce the digital divide. This includes, among others, efforts aiming to widen the geographical coverage of the internet network to improve internet access, efforts aiming to enhance digital literacy among those less familiar with new technologies, and efforts aiming to address accessibility issues related to physical and mental disabilities and different cognitive abilities.

- *Monitoring and evaluation*

Interventions, policies and infrastructures should be subject to continuous monitoring and evaluation. For example, data sharing infrastructures could be regularly reviewed in terms of security and conformance with digital rights. Monitoring of digital tools would allow for assessment of their effectiveness and adequacy, and for adjusting them accordingly to the dynamic changes in drug markets and in the needs of the target populations. For example, services should be adaptive to changes in substance use patterns.

Conclusions

The use of digital tools in the fields of substance use and substance use disorders may be linked to a range of risks and opportunities that need to be managed. Current trajectories of use of such tools are heavily influenced by large multinational for-profit companies with relatively little involvement of key stakeholders such as people who use drugs, service providers or academics. Current funding models are problematic and lack the necessary flexibility associated with best practice business approaches such as Lean, AGILE and customer discovery. Access/availability, digital rights, user friendly design and person-focused approaches should be at the forefront of efforts to develop this space. Global legislative and technical infrastructures are necessary and should include ethical frameworks, monitoring and evaluation and continuous trend analysis.

The importance of protecting PWUD' and their service providers' digital rights to privacy, confidentiality, security, freedom of expression, freedom of harassment and high-quality person-centred healthcare have been highlighted by the involved experts. There is a strong need to develop an in-depth and focussed ethical framework to discuss a range of issues, and the particular challenges they pose, including those around open science, citizen science and data sharing,[45] content moderation,[46] and the use of algorithms which 'predict', for example, the receptiveness people living with substance use disorders to treatment.[41] Increasing access/availability, monitoring and evaluation of digital tools and the continuous monitoring of drug market trends are also paramount cornerstones to the optimal use of digital tools in the field by 2030.

Access issues, funding, user friendliness and digital rights were recurring themes throughout discussions. It is clear that concerted efforts may be needed to address issues associated with the digital divide for the effective use of digital tools. Current public funding models in the field may be problematic as they often do not allow engagement with current best practices in technology development such as the use of lean and agile

approaches that are flexible in terms of features and population served. Industry involvement continues to be a problem but may be circumvented by engaging in open sciences practises which, however, remain poorly adopted in the field.

It is clear that well established technologies like mobile applications still function sub-optimally in the field. For example, many apps in the field currently lack an evidence-base, frequently lack significant positive effects and may even encourage harmful use of substances. Issues around content moderation also require more significant focus both in terms of removing harmful content and preventing privately-run content moderation policies from negatively impacting service provision .

Ensuring high quality reliable data in the field is likely to also be impacted by newly emerging technologies such as large language models (LLMs) linked to generative artificial intelligence which has perhaps been best illustrated by the disruptive impact of chatGPT which is built using such models.[47] Generative artificial intelligence-based technologies will likely require human supervision for the foreseeable future to ensure the reliability and validity of information and the prevention of inherently occurring bias. There may be significant risk of the spread of misinformation around substance use and substance use disorders and the replication of discrimination and stigmatisation based on historical data used to 'train' or teach/develop such LLM models. In this context, there may be a need for greater involvement and capacity building of healthcare workers to counteract this type of misinformation to prevent potential negative health impacts of the virulent spread of such information[48] and the replication of such biases.

Building the necessary ethical and technological infrastructure will require time and effort and multi stakeholder engagement.[49] The investment in open science practices and the open sourcing of technology and datasets are likely to contribute substantially. A 'one size fits all' for data sharing is unlikely to work and multistakeholder data sharing may be able to occur through permissioned access systems, whereby, different actors like law enforcement officers and PWUDs may be able to share and access different types of information and data ranging from newly emerging trend data to the sharing of best practices.[49]

Key messages

- There is great value in a diverse range of stakeholders working together to conceptualise a future they would like to see and thinking about small practical steps that they might take towards achieving this (for example, through advocacy, grant applications, research, implementation of smaller projects)
- COVID rapidly accelerated digitalisation and showed how effective digital tools can be, but also highlighted the many existing challenges including: Internet access issues, lack of appropriate physical spaces to engage in digital interventions, follow up/after care, and a lack of best practices as guidance.
- Industry involvement and "shared value" investments between industry and public health remain contentious issues. Some people are happy to work with (tech) industry, others are completely opposed.
- Some big jumps in areas of the field are already now technically possible (for example, greater involvement of experts and better content moderation policies). These changes could be implemented very quickly by the right decision makers.
- There is a significant need to develop ethical frameworks to govern the use of various technologies ranging from social media to artificial intelligence.
- Data continues to be siloed and moving towards the ideal global data sharing environment will require investment in infrastructure, development of standards and possibly enactment of global conventions/treaties

- We are struggling to figure out how best to engage with current technologies and it remains difficult to predict what the next, inevitable, technological advances are (for example, generative AI, such as ChatGPT, was not widely socially discussed when the back-casting exercise was held, but now has significantly disrupted many industries)

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THEME 2: New market challenges

Background: Overview and aim of the group

The global drug market changes and adapts to new opportunities and threats and this working group (WG2) examined recent and current issues relating to these changes and evolution of markets. Initial topics for possible exploration included: market flows, new drugs (licit and illicit), the impact of global forces (e.g., global travel, digitalization, climate change impacting production and migration routes), and local factors (e.g., policy approaches to regulate markets, changing demographics).

The initial aim of the group was to prepare an introductory background paper and presentation for the major session of the Inter·GLAM track in the Lisbon Addictions 2022 conference, around the two topics. To do this, the group planned the work in a step-wise approach to:

- Define the scope of the topic to be addressed
- Carry out a narrative literature review on issues in the defined scope
- Summarise the findings of this review

After discussion with the conference organisers, it was decided that the group would not add a presentation to the major session, but should aim to focus their research on complimentary issues not covered by the major session speakers, continuing discussions in person at the conference, to be expanded into a journal article submitted to an open-source journal.

The focus of the work was narrowed down to two main working group topics of interest connected to global drugs markets: medicinal use of psychotropic substances, and early warning systems based on drug markets; and, eventually, while the NPS topic continued to unfold in parallel, the Inter·GLAM working group developed a review and article on the topic of "*current perspectives on the use, research and medicalization of psychedelic drugs for mental health and addiction treatments"*.

Introduction:

Unmet treatment needs are high for substance use disorders (SUD), but also for other psychiatric disorders, which affect >1 billion people worldwide and contribute greatly to global DALYs (4.9%).[1,2] About a third of patients with anxiety disorders,[3,4] depression,[3] or psychotic spectrum disorders are regarded as treatment-resistant (not responding to two adequate doses and duration of medication). [3,4,5] Therefore, it is clear that therapies with better efficacy for (treatment-resistant) psychiatric patients are needed.

During the 1950s-60s, psychedelics showed promising results for treating a range of psychiatric disorders, including SUDs, anxiety and depression.[6] These classic serotonergic hallucinogens act primarily via activation of the neuronal 5-HT2A-receptors, and induce non-ordinary states of consciousness, thought, and feeling.[7] However, psychedelic research came to a halt when, in 1970, the USA Controlled Substances Act was signed into law by President Nixon, placing psychedelics into Schedule 1 (i.e., unsafe and high risk for abuse, with no accepted medical use for treatment); the United Nations international conventions followed in the same vein,[8] setting the scene for limited exploration of these as therapeutic substances, until the early 2000s which saw revived interest in psychedelics as treatments, and subsequently a rise in psychedelic research. In 2018-19, the FDA (US Food and Drug Administration) designated psilocybin as a "breakthrough therapy" for treatment-resistant depression and for major depressive disorder.[9] Recently, a phase-II clinical trial evaluating the efficacy of psilocybin in treatment-resistant depression was completed and, following positive results, phase-III has started recruiting patients since the beginning of 2023.[10] Besides treatment-resistant depression, the

efficacy of psychedelics like psilocybin have been assessed for SUDs with promising results.[11,12] This renewed interest by researchers, patients, pharmaceutical companies, legislators, and the general public is not only limited to classic psychedelics, but applies to other psychedelic-related substances as well, including dissociatives (e.g., ketamine and ibogaine) and entactogens (e.g., 3,4-methylenedioxymethamphetamine [MDMA]).[13]

In response to the FDA, several countries have adapted their legal frameworks to allow the therapeutic use of these substances. As with cannabis, medical use has been legislated in several countries in the last decades;[14] Australia has already changed the classification of psilocybin and MDMA to enable medical prescription by psychiatrists.[15] Also, several states in the USA have (partially) decriminalized psilocybin and other psychedelics (e.g., in Oregon, psilocybin can be administered by a licensed facilitator without medical authorization). Other legislative changes in the use of psychedelics include medical use, clinical research, and policy analysis to evaluate the feasibility of decriminalization or regulation of recreational use.[9] However, despite these broad legislative changes, to date only esketamine has received approval as treatment for a psychiatric disorder (i.e., for treatment-resistant depression) by the FDA and the European Medicines Agency (EMA).[16] To date, no other psychedelics, dissociatives or entactogens have yet received such approval, although, as mentioned, other phase-III clinical trials (e.g., MDMA for PTSD or psilocybin for depression) are underway.

Methodology: Process to develop the briefing document

The original working group consisted of 16 members (Female: 11, Male: 5, Other: 0) from 11 different countries worldwide, and representing academic, civil society, policy and clinical profile organisations. The initial meetings of the working group used interactive consensus-building techniques such as *Slido* to identify 4-5 main topics of interest within the broad topic:

1. Sub-cultures + gender and generational identity use drive markets (also peer, patient expert and user perspectives)
2. Health and harm-reduction + Monitoring and early warning systems (some elements outside this)
3. Medical use of substances and consequences
4. Policies, policy changes and risk perception and changes in markets and opportunities
5. economies and how drug production influences market flow (+ ethical impact

The group created a shared document to develop ideas around these topics, sharpen the focus and volunteer for roles to develop text in a final paper.

Over the Summer 2022, through further meetings and online working, the focus was refined to 3 sub-topics of interest within the broad umbrella of *New Market Challenges*:

1. Resilience of drug markets (topic covered by the major session)
2. Medical use and markets of psychedelics
3. NPS and alert system

The group split into 2 smaller groups with the intention of developing two papers in parallel covering the topics not addressed by the expert speakers of the conference major session (topics 2 and 3), each lead by one of the group chairs. Two further associates of group members, with scientific interest in the topics, joined the groups at this time. Work continued in parallel through Autumn 2022, and hybrid in-person/online meetings were held in the context of the Lisbon Addictions Conference to collaborate on the work. Before and after the conference, review work on the medical use topic (topic 2) continued, while it was considered that the issues

to be highlighted in the NPS topic (topics 3) were being adequately and actively covered by other EU and international initiatives (e.g., SCANNER[17]), and that a review by Inter·GLAM on this sub-topic would be duplicative.

Through the exploratory narrative review of the topic, the group detected a gap in the knowledge base: the clinical research, therapeutic potential (i.e., efficacy) and safety of psychedelics, particularly for the treatment of SUDs. Previous reviews have tended to focus on a single psychedelic substance or class, on a single specific SUD (one substance), or covered many different medical uses of psychedelics without looking in depth into SUDs. By focusing on the major (randomized) clinical trials on psychedelic substances for the treatment of SUDs, the group aimed to provide a balanced overview of potential benefits and harms of psychedelics (including entactogens and dissociatives) in addiction/SUD treatment in general. In addition, the paper - *Current perspectives on the use, research and medicalization of psychedelic drugs for mental health and addiction treatments* - aimed to discuss the societal impact of the medical use of these substances, and future perspectives in this treatment field.

To provide a comprehensive review of SUD treatment with controlled psychedelic drugs, the group developed a common structure for the information to be gathered, and then divided up their searches for research outcomes by each major psychedelic substance among the 6-7 active members, before examining other authors' sections and harmonizing the style (by the group chair). The substances covered include:

- Psilocybin
- Dimethyltryptamine (DMT / Ayahuasca / Yagé)
- Lysergic acid diethylamide (LSD)
- 3,4-methylenedioxymethamphetamine (MDMA)
- Ketamine
- Ibogaine

Summaries of the information presented on each of these and an assessment of the societal impact, harms and benefits can be seen in the next section.

Results, Conclusions and Key message on Theme 2

Mental health disorders and Substance Use Disorders (SUDs) in particular, contribute greatly to the global burden of disease. Psychedelics (e.g., Psilocybin, LSD and DMT), including entactogens (e.g., MDMA) and dissociative substances (e.g., Ketamine and ibogaine), are currently being explored for the treatment of SUDs, an application with less empirical clinical evidence than of psychedelics for other disorders, such as depression or PTSD. The narrative review offers a succinct introduction to research on the evidence, therapeutic potential (i.e., efficacy) and safety of psychedelics being used to treat SUDs, and considers societal and policy issues around the topic.

The group highlights the need for more clinical research in this particular treatment area, and urge caution to minimize the risks of the widespread use of these substances outside of controlled settings.

Psilocybin (magic mushrooms)

Psilocybin (and its metabolite psilocin) are the main psychedelic active compounds species of the *Psilocybe* mushroom family; which works mainly via the activation of the 5-HT2a serotonin receptor of the brain[7] and its neuroplastic effects.[18]

Along with MDMA, Psilocybin is the most-studied psychedelic compound in this area; and its efficacy has been assessed in therapeutic settings for the treatment of depression, anxiety, existential distress (in terminally ill patients) and other conditions following life-threatening diagnoses. The efficacy of psilocybin has also been assessed along with conventional psychotherapy in SUDs. Clinical studies have shown significant and lasting increases in abstinence and reductions of heavy drinking days in AUD patients after 1-2 administration(s) of psilocybin combined with Motivational Enhancement Therapy or psychotherapy. [11,19] Studies on tobacco use showed increased and lasting abstinence after 2-3 psilocybin administrations combined with Cognitive Behavioural Therapy.[12,20]

Dimethyltryptamine (Ayahuasca / Yagé)

The psychedelic compound DMT or N,N-dimethyltryptamine is widely present in many species of plants and animals in nature.[21] The combination of plant leaves containing DMT (usually from *Psychotria viridis* or *Mimosa hostilis* species) and monoamine oxidase inhibitors (MAOIs – ingested as additional plant leaves to overcome the presence of MAO enzymes in the human digestive tract), referred to as *ayahuasca* or *yagé*, are traditionally used by many groups from the Amazonian rainforest. It induces most of its psychedelic effects via activation of the 5-HT2a receptors in the brain,[7] and has neuroplastic potential.[22]

Ayahuasca has been explored in therapeutic settings with promising results for several mental health disorders and symptoms, including depression,[23,24,25] social anxiety,[26] grief,[27] and possibly PTSD.[28]

To date there have been no RCTs assessing the efficacy of Ayahuasca in SUDs. The only reports include preclinical research, observational studies among healthy ritual ayahuasca users and patients with SUDs, reporting reductions in drug use, anxiety, and depression, and increases in quality of life and well-being.[29] However, these studies have major limitations hampering conclusions about the potential efficacy, and further randomised controlled studies are warranted.

Lysergic acid diethylamide (LSD)

Lysergic acid diethylamide (LSD) is a classical hallucinogen and the most researched during the 1950s-60s.[6] It exerts its pharmacological effects mostly via activation of the 5-HT2a brain receptor,[7] and as neuroplastic potential.[22]

A meta-analysis on the efficacy of LSD in SUDs[30] found that a single dose of LSD had a beneficial effect on alcohol abstinence, which was significantly maintained in three of the six studies after 3 months, and up to 12 months post-treatment for heroin abstinence in one study.[31] The effectiveness of this single dose was comparable to the positive effects of drugs commonly used for the treatment of alcohol use disorder such as naltrexone, acamprosate, or disulfiram.[6,30] However, some limitations are noted: The review included trials from the late 1960s and 70s, with limited clinical research on LSD since then. Secondly, the individual studies included in the meta-analysis were underpowered and had some methodological design problems. More robust designs are now needed to replicate or refute these findings and strengthen knowledge on the potential use of LSD.

3,4-methylenedioxymethamphetamine (MDMA)

MDMA or 3,4-methylenedioxymethamphetamine is a synthetic molecule which induces mood lifts, closeness to others and increased sociability,[32] by increasing monoamine neurotransmitter levels in the brain, particularly serotonin, dopamine, norepinephrine,[33] and hormones oxytocin and vasopressin.[34]

MDMA has shown positive results for the treatment of PTSD (Mitchell et al., 2021).[35]

Two studies have assessed MDMA as treatment for SUDs: Sessa et al. (2021) explored the efficacy and safety of MDMA with psychotherapy as treatment for AUD, without any control group, and found that MDMA was well tolerated and participants reduced alcohol consumption at nine months post detoxification.[32] Nicholas et al. (2022) found that MDMA-assisted psychotherapy in participants with severe PTSD and AUD was significantly more effective in reducing alcohol consumption compared to psychotherapy and placebo.[36] With the current evidence based on these studies, it remains unclear whether MDMA's potential effectiveness for the treatment of SUDs is due to its direct effect on the SUD, or, indirectly, due to reducing symptoms of comorbid psychiatric conditions, such as PTSD.

Ketamine

Ketamine is a dissociative NMDA-receptor antagonist from the arylcyclohexylamine family.[37,38] It is a well-established anaesthetic and analgesic, more recently known for its use in therapy (together with its enantiomer esketamine) for treatment-resistant depression, with possible applications for anxiety, suicidal ideation and bipolar disorder. Effects of use include mild sedation, unusual thought content, confusion, delusions and hallucinations.

Ketamine has also been investigated in treatment for alcohol, cocaine and opioid use disorders.[39,38] In their meta-analysis, Jones et al. identified 7 clinical studies of ketamine in addiction treatment; including 2 trials on cocaine use disorder, 3 on opioid use disorder and 2 on alcohol use disorder, as well as several ongoing trials (on alcohol use disorder).[39] Studies on cocaine showed that ketamine increased motivation to quit cocaine and reduced craving; as well as reduction in frequency and amount of cocaine use compared to midazolam and lorazepam.[40,41] Regarding opioids, higher and frequent doses of ketamine treatment (compared to lower doses and less frequent) increased abstinence rates and decreased craving.[42,43] Similar results have been reported in alcohol use disorder, where ketamine treatment increased abstinence rates, time to relapse, and reduced the likelihood of heavy drinking days compared to conventional treatment and placebo.[40] Overall, treatment with ketamine has shown positive results in addiction treatment, particularly in cocaine use disorder. Further research with larger samples is needed.

Ibogaine

Ibogaine is an alkaloid substance from the tryptamine or indole family, isolated from the bark of the African shrub root *Tabernanthe iboga*. It affects multiple neurotransmitter systems: an NMDA receptor antagonist, with affinity for opioid and serotonin receptors, and monoamine transporters.[44] It has been hypothesized that ibogaine works by reversing the effects of opiates on gene expression and addictive loops and pathways in the brain, restoring neuroreceptors to their pre-dependent state.[44]

In a 2021 meta-analysis of studies, six clinical trials involved people with cocaine or opioid use disorders.[45] The 4 open-label trials showed reductions in opioid or cocaine withdrawal symptoms and craving, improved mood and depressive symptoms, all after ibogaine or noribogaine use.[45] One double-blind placebo-controlled clinical trial showed significant reduction in cocaine craving at 24 weeks compared to placebo, although the sample was very small (n=10).[46] The second trial evaluated the effects of noribogaine in opioid-dependent patients compared to placebo, but results did not differ significantly.[47]

Based on the above, ibogaine appears to be a promising substance for future study; as is ibogaine's main (higher potency) metabolite, noribogaine,[48,44] and ibogaine derivatives, 18-Methoxycoronaridine (18-MC) and tabernanthalog, which have safer toxicological profiles.[44,45] Larger clinical trials are needed to assess the efficacy and safety of ibogaine.

Individual and societal impact

The studies discussed show that psychedelics are possible therapeutic compounds with potential value for the treatment of SUDs and other mental disorders. However, in parallel with this optimistic conclusion, it is important to be aware of the potential risks associated with the use of such substances in both recreational and therapeutic settings, ranging from neurotoxicity to psychological adverse effects; which can be expected to differ depending on the context of use. Recreational users often report social activities and pleasure as goals, and use higher doses compared to prescribed substances in medical contexts. Substances prescribed in medical settings aim to reduce or improve a certain symptom using the lowest and safest dose, using a certified quality product during a limited period of time, while carefully monitoring the onset of potential adverse events.

Neurotoxicity

Neurotoxicity is understood as any harm or non-beneficial changes to the structure or function of neurons. In preclinical trials, with doses higher than those typically used in recreational and medical contexts, some psychedelics (i.e., ketamine, ibogaine and MDMA) have shown some form of neurotoxicity (e.g., persisting serotonergic damage). Specifically, ketamine,[49] ibogaine,[50] and MDMA[51,52] have shown this kind of toxicity at high doses and/or repeated administration. However, there is no evidence of neurotoxic effects in animal models at therapeutic doses. On the other hand, psilocybin, DMT and LSD were not found to induce neurotoxicity at high doses and/or repeated administration, and some preclinical studies have shown that these compounds may in fact induce neurogenesis and neuroplasticity.[53]

The extent of the neurotoxicity of MDMA therapy and its impact on neurocognitive tasks is still debated; with research to date mostly based on preclinical research in animal models and observational human studies with recreational MDMA users. Animal studies have shown persisting serotonergic damage after MDMA exposure, but extrapolation to humans is limited due to the lower dosing and frequency of recreational use.[51,52] Neuroimaging studies have shown reduced serotonin transporter (SERT) binding in abstinent Ecstasy/MDMA users, who also showed deficiencies in a variety of biobehavioral processes with a serotonergic component: deficits in sleep, mood, vision, pain, psychomotor skills, tremor, neurohormonal activity, and mental status.[54] Recreational ecstasy usage over time may cause haemodynamic and electrophysiological alterations that slow the use of increased resources for cognitive functions.[55] However, these findings are based on recreational use (i.e., higher doses, high frequency of consumption, adulteration, mixtures, etc. compared to therapeutic clinical use), and confounders are difficult to rule out, such as polydrug use, impurity, adulterants, and setting effects. A higher toxicity can be expected in typical party settings, as long periods of dancing can lead to increased body temperature, which exacerbates oxidative stress.[51,56] In addition, subtle cognitive and memory dysfunctions in MDMA users have been described. However, it is not clear whether these were related to MDMA use, or associated with other confounding factors, like sleep disruptions, prolonged stress or drug combinations.[51]

Chronic ketamine use in humans have shown to result in grey matter depletion, specifically grey matter volume reduction in the left superior frontal cortex and right middle frontal cortex. Moreover, deficits in executive functions (worse scores and more time needed on tests) have been reported in people with ketamine dependence compared to non-user controls.[57]

Physiological adverse effects

In medical settings modest blood pressure and heart rate increases have been reported with different kinds of psychedelics.[58,59] Consequently, there are indications that patients with heart conditions should be screened

and potentially excluded from psychedelic therapy.[6] It is worth noting that during one phase-3 MDMA clinical trial, no cardiac events (e.g., increased heartbeat) were reported with doses 80-180mg, and adverse events were more common in the placebo group.[35] In 9 MDMA studies which measured blood pressure, body temperature, and heart rate, all reported mild, transient, statistically significant elevations during the MDMA session, but none requiring medical intervention.[60] Using MDMA in recreational settings have been associated with adverse effects like bruxism, sweating, dry mouth, thirst, dizziness, insomnia and nausea. More dangerous adverse effects include accelerated heartbeat, hypertension, hyperthermia, hyponatremia and cardiac arrhythmia; and in extreme cases even death.[61]

Patients with treatment-resistant depression who received ketamine (56 or 84 mg) expressed mild nausea, vertigo, dysgeusia, and dizziness symptoms compared to placebo.[62] Another study showed that oral ketamine (60, 120, 240mg) did not increase blood pressure or heart rate compared to intravenous ketamine. Reducing and delaying ketamine's peak concentration by oral dosing with controlled-release ketamine tablets improved tolerability for patients with depression/anxiety.[63] Intensive recreational ketamine use can result in persistent bladder damage[64] and visual impairment.[65]

In clinical studies, nausea, ataxia and seizures have been reported from ibogaine administration at higher-than-recommended doses (four times the recommended dose of 25 mg/kg).[50] In normal doses (500, 600, or 800 mg), ibogaine was well-tolerated by all participants.[66] Noribogaine resulted in headaches and nosebleeds as adverse events at normal doses.[50] The most serious threat associated with ibogaine use is death related to heart conditions, specifically QTc interval prolongation and abnormal heart rhythm (TdP).[50]

In recreational settings, many researchers consider classical psychedelics (LSD, psilocybin, DMT) as non-toxic.[53] LSD in particular, exhibits very low physiological toxicity, even at very high doses, without any evidence of organic damage or neuropsychological deficits.[6] However, not all psychedelics are safe, and lethal cases of some psychedelic phenethylamines use (e.g., NBOMe series) have been reported;[7] although these are not being considered for therapeutic use.

Caution should be taken when using ayahuasca because of its MAO inhibitor components, which can cause serotonin syndrome or hypertensive crises when combined with certain medicines (e.g., psychostimulants or antidepressants).[67]

Adverse effects on mental health

There are concerns regarding the impact of psychedelics on mental health. In recreational settings, the most common adverse event experienced is the so-called "bad trip", described as an acute state of confusion, distress and dysphoria that can lead to unpredictable behaviour in unsupervised environments.[6] In severe cases, suicide attempts by people having a bad trip have been reported; however, for a number of people these challenging experiences are reportedly associated with beneficial outcomes afterwards.[68] People with previous psychotic episodes or vulnerability to psychosis are at risk of increased psychotic symptomatology during a bad trip.[68,6] Variables such as drug dose, the degree of difficulty of the experience, the duration of the experience, and the absence of physical comfort and social support increase the risk of having a bad trip.[68] These compounds may be considered relatively safe when measures are taken to mitigate severe symptoms and psychosis history.[69] Regarding MDMA, cases of amnesia were observed only with high doses of the drug.[70] Ketamine users can experience delirium, delusions, and confusion as part of its dissociative effect.[37]

Under laboratory or supervised medical conditions, the risk of experiencing a bad trip is very low. In one study, less than 1% of the participants (n=250) reported psychological distress or negative symptoms at psilocybin doses 20/70kg or higher.[68] With DMT, patients reported mild adverse events such as anxiety and the

psychedelic high, but both effects were resolved after 30 minutes of the intravenous injection.[58] With respect to MDMA, only one study on safety and tolerability has been performed in patients with AUD, and no unexpected adverse events were observed among participants.[32] In the case of ketamine, feelings of dissociation can be described as an adverse effect,[62] but generally ketamine appeared to be safe and tolerable in patients with PTSD and treatment-resistant depression.[71] Furthermore, ketamine did not exacerbate psychotic symptoms in patients with a history of psychosis, suggesting that the administration of ketamine in a clinical setting could also be safe in those with psychotic history.[72]

Some people report "flashbacks" after the use of psychedelics. This term, displaced by HPPD (hallucinogen persisting perception disorder), refers to re-experiencing one or more of the perceptual effects induced by a hallucinogen at a later time, after the acute drug effects wear off. The incidence of HPPD is very low and should appear rarely with psychedelics used in therapeutic setting instead of recreationally – due to careful screening, preparation, supervision, and judicious doses of pharmaceutical quality drug; but research in this area is inconsistent. One study reported 2% of subjects had "major perceptual changes" following therapeutic LSD use. Among recreational LSD users, estimates vary between no cases in thousands of reports, to 77% of users.[73]

Classic psychedelics do not seem to trigger addictive behaviour; indeed, sometimes they can even produce dysphoric effects.[53] For instance, LSD does not entail physical dependence as withdrawal syndrome, however, its frequent long-term use can lead to tolerance (Fuentes et al., 2020). Classic psychedelics are not considered to be reinforcing, with no direct effects on brain dopaminergic systems, a circuitry that appears to play a crucial role in the transition to addiction. Attempts to train animals to self-administer psychedelics have generally been unsuccessful.[7] A similar phenomenon occurs with ibogaine, which also is described as non-addictive.[74] MDMA and ketamine are known to be addictive, although their addictive potential is described as lower than alcohol and tobacco - the addictive potential of MDMA was rated as 1.13, ketamine as 1.15, alcohol as 1.93 and tobacco as 2.21.[75] In the case of MDMA, particularly high doses (> 3 mg/kg) seem to lead to addiction.[70] Regarding ketamine used in addiction treatment, no studies reported a transition to illicit use after introduction in a therapeutic context.[38]

Societal effect of medicalization of psychedelics

In addition to the risks discussed above, there are broader public health concerns associated with the legalization and medicalization of these substances. One argument against the legalization of psychedelics for research and medical use is that it would increase the use of these drugs outside healthcare settings. Public risk perception may shift based on the legal status and availability of some of these compounds, leading people to see them as less harmful than previously perceived. This may result in increased risky behaviours and increased recreational or self-administered usage. As has been suggested following the legalization of cannabis in several states in the USA, a consequence of legalization can be increased use and treatment demand for SUDs; for instance, Cerda et al. reported increased rates of cannabis use disorder from 0.33% to 0.54%.[76] Evidence has also shown an increase in hospitalization for psychiatric disorders following cannabis decriminalization.[13] The Global Drug Survey (2022) reported a rise in psychedelic drug use in recent years across most global regions, most notably in ketamine and psilocybin.[77]

It is important to note that, although many studies appear to demonstrate the low risk of using these substances for medical indications, in clinical studies the participants are usually assessed and monitored throughout the trial by healthcare professionals, and need to be in good health to participate. Additionally, clinical trials use medical-grade substances in carefully measured doses; it is unlikely that people self-medicating with psychedelics would have access to the same standard of drugs, or the same careful way of

administration and quality products; as such, what we know about side effects in medical contexts will probably not apply in other less-regulated contexts. As with all illicit drug use, there are associated risks of contaminated products or inconsistent/unknown strength, such as overdose or complications from adulterated substances.

Even in medical settings, there are concerns about the proliferation of for-profit clinics, such as the increase of ketamine clinics in the USA.[13] These are often unregulated, and reports suggest that they may fail to screen patients properly, offer inappropriate or not-recommended doses of psychoactive drugs, or lack oversight by medical professionals. Similar for-profit clinics for other psychedelics compounds are expected to appear in the coming years.

Finally, the psychological impact of therapeutic administration of psychoactive drugs can be profound and have been reported to access repressed traumas. Without careful and appropriate management, this could aggravate rather than address trauma in some individuals. With increasing numbers of clinics offering psychedelic-assisted therapies, there are risks that these will not be well-managed or monitored. As with other services, it is important that these clinics are facilitated by trained professionals to ensure patient safety during the treatment as well as appropriate aftercare.

Conclusions

Despite promising results from recent clinical trials, further research is needed to safely advance on the path of medical use of psychedelics for treatment of SUDs. For this to happen, it would be very beneficial to have funding from public entities to support the research process, and to establish rational legislative frameworks; a conventional, commercial, pharmaceutical approach may not be adequate due to the nature of such substances, parallel illicit markets, and the importance of the therapeutic context.

There are significant challenges and limitations inherent to this research field which need to be addressed, such as the difficulty in blinding, the standardization and homogenization of Psychedelic-assisted Psychotherapies (PAP) protocols across different studies, and compounds with strikingly variable effects across different doses, sets and settings. Research method standards in this area needs to be rigorously upheld, to avoid overestimating or overstating the use of these substances in the face of strong public opinion. Effectiveness and adverse effects must be properly assessed and communicated, with high quality studies, such as randomized controlled clinical trials and carefully chosen indicators.

Most of the aforementioned substances (Psilocybin, DMT, LSD, MDMA) are listed as Schedule 1 in the UN 1971 Convention on Psychotropic Substances, which results in costly and time-consuming bureaucratic processes to perform both preclinical and clinical studies with these drugs, prompting a number of researchers to suggest reclassification to facilitate research in this area. Another reason for reclassification is that the Schedule 1 category, by definition, should contain substances with no known therapeutic effects, a high potential for abuse/dependence, and evidence of serious adverse effects, which, it can be argued, does not to apply to the psychedelics, entactogens and dissociatives discussed here. Reclassification can also reduce stigma associated with use of these drugs, thereby increasing the possibility of information seeking, literacy and harm-reduction initiatives.[26]

Despite the need for innovative new treatments, especially chronic and treatment-resistant mental health disorders, the investigation of psychedelics in this role remains a challenge. There is a need for the issue to be addressed as early as possible, taking into consideration that most of these research lines are in Phase II-III of clinical trials and close to medical authorization if not already authorized (as with esketamine). Australia and some American states are examples of how quickly changes could happen outside of the regular paths of

clinical research and medicine authorization, highlighting the need to put in place measures to reduce the risks/impact on health, and the possible diversion of substances, following changes in popularity and mainstream availability of these substances.

Policy measures are needed to minimize the potential harm of the use of these substances in non-clinical settings. More research is needed into effective harm-reduction strategies, media campaigns and their efficacy, as well as education aimed at users, medical professionals and society in general; to highlight the specific context of therapeutic use and prevent the clinical results from being interpreted as an invitation to use these substances outside of clinical contexts and/or without the appropriate harm reduction measures.

It is also important to make psychedelic(-assisted) therapies accessible and feasible. This can be a challenge; most protocols describe a series of preparatory sessions prior to the session where the substance is administered, followed by the integration sessions, which may improve safety and efficacy, but also increase duration of treatment and costs, and reduce adherence. In less developed countries there can be greater financial barriers to accessing these medications.[26] More comprehensive reporting and evaluation of implementation methods could help to develop best practice guidance in this field.

Key messages

- Unmet treatment needs are high for substance use disorders (SUDs), and (co-morbid) psychiatric disorders; therapies with better efficacy for (treatment-resistant) psychiatric patients are needed.
- Psychedelic-assisted Psychotherapies (PAP) for psychiatric disorders has seen a renewal of interest in recent years, but no previous review seems to have looked a broad range of psychedelics in terms of their potential to treat SUDs.
- There seems to be great potential for the use of psychedelics in the treatment of both mental health and substance use disorders, including classic psychedelics (Psilocybin and Ayahuasca), dissociatives (ketamine and ibogaine) and entactogens (MDMA).
- Following principles of PAP, protocols should aim to use the lowest and safest dose, a certified quality product, during a limited period of time, while carefully monitoring the onset of potential adverse events.
- More detailed and rigorous research is needed to further clinical and academic understanding of this area and allow for effective and safe development of these treatments.
- Context, set and setting may be moderators of therapeutic effect, and require more extensive investigation.
- There is also a need for caution in reporting, responsible communication, and clear regulatory guidelines to prevent adverse outcomes and risky use in non-therapeutic contexts.

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THEME 3: Drug use, lifestyles and settings

Background: Overview and aim of the group

Within the topic of Drug use, lifestyles and settings (socio-cultural contexts and physical environments, voices from impacted communities), this working group examined how socio-cultural contexts and physical environments affect drug use. Initial ideas for exploration included: normalising and glamourising drug use, particularly in film and social media; traditional drug use and drug tourism; policy initiatives that promote safer nightlife or harm reduction. These were considered in the context of their impact on different communities and individuals.

The final Lisbon Addictions 2022 session showcased perspectives from diverse profiles of media content creators and audiences, and explored the influence of a variety of stakeholders of the drug arena, and the impact of the media depictions on perceptions, attitudes, behaviour and societal activities.

Methodology: Process to develop the briefing document

The original working group (WG3) consisted of 14 members (Female: 11, Male: 3, Other: 0) from 9 different countries worldwide, and representing academic, civil society, policy and clinical profile organisations.

The working group arrived at the topic of media representations of drug-use and markets, for the Lisbon Addictions session and scientific topical exploration using a series of bespoke co-creation steps:

1. Members of the Inter-GLAM working group on *Drug use, lifestyle and settings* brainstormed on the possible topics, formats, and profiles of invited speakers of the conference session;
2. The coordinators grouped the topic ideas into 6 clusters
3. WG3 members and Inter·GLAM coordinators selected and expanded the three most appealing topic clusters through a remote ranking and detail exercise
4. Based on the outcomes of the ranking exercise, and further working group meetings, core group from WG3 invited speakers, developed the session dynamics and chaired and ran the session, drawing out conclusions and key messages from the perspectives and discussions.

Brainstorming

The central question of the brainstorming was: "Suppose tomorrow you will attend the Lisbon Addictions 2022 conference. You look at the conference "menu" and you have to choose. It's like going to a big music festival and all your favourite music bands are playing at the same time. You take a glance at the Inter-GLAM workshop on the program and you say to yourself: "*Wow, that's definitely what I want to see and hear, I really want to go to that session.*" What would make you so enthusiastic? Think about: a) topics, b) format of the session, c) profiles of speakers.

Topic clusters identified

Summaries of the six topic clusters (C1-6) identified from the brainstorming were:

C1 - SCOPE OF MEDIA DEPICTIONS AND REPRESENTATIONS

- History of drug use depiction trends
- Divergent and convergent trends of depictions of drug use and addictions across the globe/ diverse cultures

C2 - CHARACTERISATION OF MEDIA DEPICTIONS AND REPRESENTATIONS

- Are there any typical media representations?
- Banalisation/ normalisation/ desensitisation

- Influence of drug producers (both legal and illicit drugs)

C3 - INFLUENCE OF MEDIA DEPICTIONS AND REPRESENTATIONS ON BEHAVIOUR
- Relationship b/w media reps and real-world drug use trends
- Relationship b/w negative connotation in media representations of health behaviours
- Associations on screen b/w drug use and other risky health behaviours on the screen

C4 - SOCIETAL REACTIONS TO MEDIA DEPICTIONS AND REPRESENTATIONS
- Relationship b/w stigma and depictions of stereotypes
- Influence of user-generated (social media) and professionally produced content
- Influence on lifestyle and employment choices
- Potential to use depictions for a public health approach

C5 - VULNERABILITY ON-SCREEN AND OFF-SCREEN
- Gender perspective on-screen
- Influence on perceptions and attitudes in young generations

C6 - REGULATION OF MEDIA DEPICTIONS AND REPRESENTATIONS
- Where does social responsibility lie?
- Influence on policy responses to addictions
- Policy approaches to modulate/ stop the influence

Ranking topic clusters

WG3 members and coordinators (15 in total) were e-mailed the topic clusters in a tabulated format and asked to rank the topics and provide further comments and ideas for formats and speakers in a session on their preferred topic before their next online meeting in July 2022.

The objectives were:

- Feedback on the ranking of topic clusters identified in previous meeting
- Agree on the cluster that will drive the session
- Identify the topics and possible speakers

The instructions given were:

> Our next step towards the next meeting of the working group is to select THE THREE MOST APPEALING TOPIC CLUSTERS.
>
> In Section 1, please *rank the topic clusters* proposed based on the group's brainstorming. We have included the specific questions and themes identified under the clusters. You can also propose further questions or reframe/ complement existing ones.
>
> In Section 2, we have summarised the group's ideas regarding the format of the session Please *provide your further comments and ideas/ preferences about the format of the session*.
>
> In Section 3, we have summarised the group's ideas regarding the profiles of invited speakers. Please *provide your further comments and ideas/ preferences about speakers***.** We encourage you to *specify names of possible speakers, in particular for your three highest ranking topic clusters***.**

Development of the topic/session

The outcomes of the ranking exercise clearly identified a winning topic cluster: *Societal reactions to media depictions and representations.* The topic of the influence of media representations on behaviour was also highly rated for interest (see below).

		CLUSTER 1	CLUSTER 2	CLUSTER 3	CLUSTER 4	CLUSTER 5	CLUSTER 6
		SCOPE	CHARACTERISATION	INFLUENCE ON BEHAVIOUR	SOCIETAL REACTIONS	VULNERABILITY	REGULATION
Ranked #	1	2	2	3	4	1	1
Ranked #	2	0	1	1	3	2	4
Ranked #	3	2	2	4	0	3	1
Ranked #	4	4	2	2	1	1	2
Ranked #	5	1	0	2	1	3	1
Ranked #	6	2	3	0	1	0	2

A core group of 7 active stakeholders from WG3 and the coordination team took forward developing the session on the chosen topic cluster, guided by the ideas and comments of the whole group:

SOCIETAL REACTIONS TO MEDIA DEPICTIONS AND REPRESENTATIONS

Description complemented with comments from ranking and group discussion during the meeting

- Relationship between stigma and depictions of stereotypes of heavy users and specific population groups in terms of ethnicity, socioeconomic status, religious beliefs, sexual orientation…, with special attention to the influence on families, children, and young people
- Influence of both user-generated (social media) and professionally produced content that associate geographic areas/ cities with partying and drug use on leisure, tourism and business investment
- Practices of legal substance industries (alcohol, tobacco) to encourage product placement and perpetuation of the use of their products embedded in the narrative, the reaction of those industries to legislation banning the presence of their products from the screen
- The influence of depictions on lifestyle and employment choices
- How could we use depictions of drug use and addictions for a public health approach to prevention? - consider the possibly positive role of depictions of prevention and recovery (e.g., modelling help-seeking behaviour, recovery from relapse, etc.)
- Identify and describe grassroots movements as a response to the lack of reliable knowledge about psychoactive substances
    - YouTube educational drug educational channel run by an activist of rational drug policy with 140k+ subscribers, as an example of user-generated informative content and censorship in social media (https://mestoslaw.pl/o-mnie/)
    - Online knowledge sharing about the ingredients, experiences and potential risks of psychoactive substances among users: *PillReports* (online database created and fed by users, https://www.pillreports.net/index.php)
- Dichotomies/ blurring boundaries between dichotomies in media representations
    - Pathologizing of illegal drugs *versus* normalization of legal substances in mainstream media
    - Narrative of fear in formal informative media (consider in light of the changes in the political discourse and policy narrative, and the owner/sponsor of the media channel) *versus* banalization/ normalization/ desensitization/ glamorization of drug use and drug related crime in entertainment media
    - Which prevention approach should drive the session? Universal Prevention for recreational users and general population, or Harm Reduction targeting problem drug use, or a combination of the two?

Agreements on general features of the session

- The group agreed on "showcasing" lived experiences, and to use an inclusive view of the diverse media channels including user-driven content and social media
- The group aimed at a scientifically rigorous but non-academic approach to the session
- The group agreed to include interactive formats (e.g., quiz) and use audio-visual elements, preferably existing ones (e.g., iconic addiction and drug related scenes, characters, news, etc. from entertainment and media)

Results, Conclusions and Key message on Theme 3

The resulting session in Lisbon Addictions 2022, *Media Representations and depictions of drug use, addiction and drug markets*, showcased perspectives from diverse profiles of media content creators, researchers, regulators and audiences, and representations of addiction from different parts of the world. The session explored the influence of a variety of stakeholders on drug- and addiction-related media content, and the impact of the media depictions on perceptions, attitudes, behaviour and societal activities, with the broad narrative structure:

1. Current media representations, social stereotypes and impact on perceptions →

2. Journalistic obstacles and new guidelines for representations →

3. A vivid example of a different, accurate and reliable depiction of drugs and people involved →

4. A vivid example of giving voice to those with lived-experience.

Resulting content

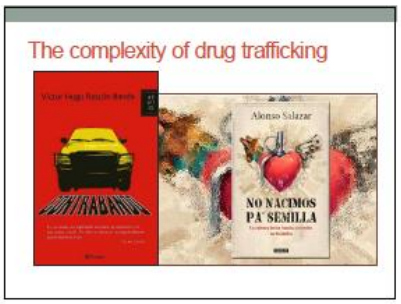
Representations of narcoculture

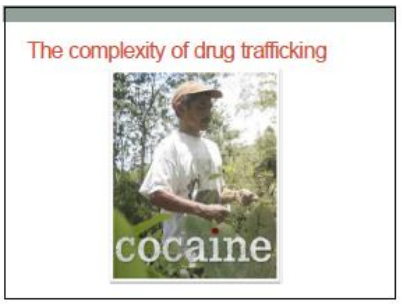
- Name: **América Tonantzin Becerra Romero**
- Affiliation: Researcher, Autonomous University of Nayarit, Mexico.
- Short bio: América Becerra holds a PhD in Social Sciences, graduated from the Autonomous Metropolitan University, Mexico. She is a Professor and researcher in the Social Sciences Area of the Autonomous University of Nayarit, Mexico. Research lines: Narcoculture, violence, and youth.
- Abstract: This presentation gave an insight into the role of the media in the representation of drug trafficking, focusing on Mexico. This work discusses the representation of the production and commercialization of drugs as a millionaire business, the narco- territories and the way of life of the traffickers. In addition, it emphasizes the importance of the media and its contents as one of the main references to interpret drug trafficking and drug use in the real world.

Emergence and types of narco-representations:

With the historical prohibition of drug sales and trafficking, and continuing enforcement and criminalization, these actors and activities initially moved underground, but with a clear place in public narratives.

This void has left space for a proliferation of representations through different media: films, TV, songs (*narcocorridos* – famous in Mexico, which are ballads narrating the adventures and exploits of famous traffickers and drug lords), stories, fashion/aesthetic, memes and accessories.





The diversity of narcoculture representations reflects the complexity of the international drug trafficking system it depicts.

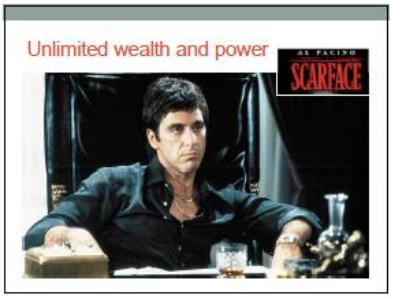
Media representations – issues:

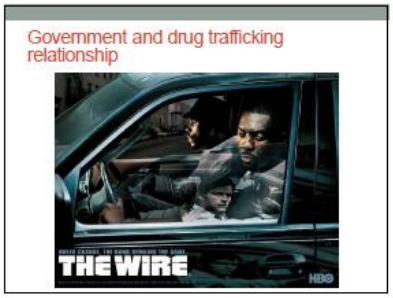
Different issues are the subject of mainstream representations of narcoculture and subsequent research, from geopolitical relations (especially across the Americas) to the roles of women in the drugs markets.[1,2]

Media protagonists:

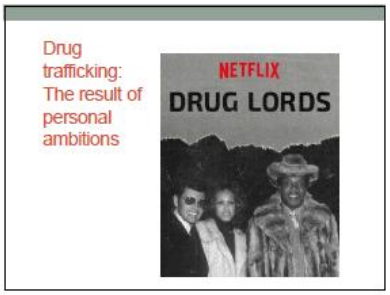
Mainstream media representations focus narratives around different actors in the trafficking and justice system: the drug lords or kingpins,[3,4] international traffickers, producers[5] (although where they are of a higher socio-economic status) and law enforcement.[6]

Representations of narcoculture – dominant messages & portrayals:

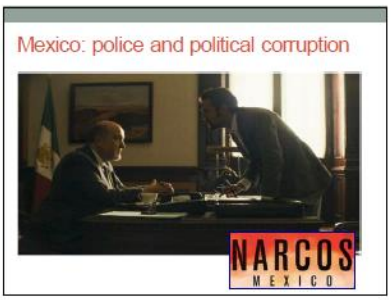


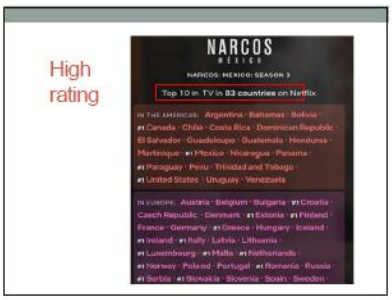


Media portrayals of the trafficking structures vary greatly, but many project messages which glamourise the lifestyle and motivations of the narco-traffickers, especially those highest in the system hierarchy, whilst also highlighting the complex relationship with governmental authorities and elected officials, sometimes undermining their perceived integrity.



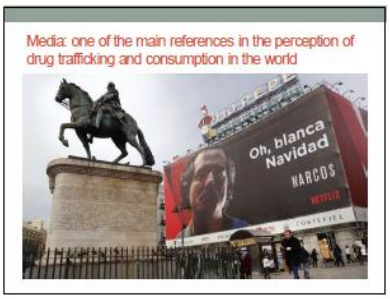
Geopolitical biases – Mexico:





The international image of Mexico is strongly shaped by these mainstream representations of Mexican narco-culture, which distort the reality of the country from the outside perspective. For example, one study identified three major representations of the television series *Narcos: Mexico* can be identified: drug trafficking as an illegal enterprise, struggles for power and wealth, and the overlap of life and death. The producers attempt to expose the complicity of the Mexican government in the increase of organized crime in Mexico, and seem to call for and justify a greater interference of the US government in national drug trafficking policies. The use of dramatization and fiction to show these themes has been apparently successful in attracting and sustaining audiences.[7]

Impact – from art to life:

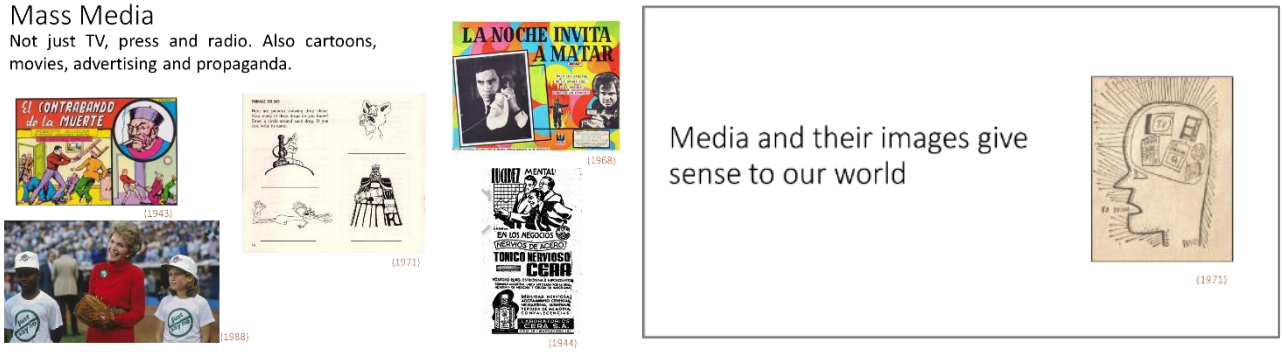


Qualitative research has studied and documented the consumption and appropriation of *narcocorridos* (songs/balads about the drug-trafficking personas) and narco series by young people who are raised in contexts of poverty and drug trafficking in the state of Nayarit, Mexico. Through a survey and focus groups it was observed that the perceived fun, action and excitement of these products are what attract this group to the media. In particular, the representations made of power in the drug world appeal, since, from their perspective, this is a means of rapid financial gain, obtaining luxury products, and influence over people. Above all, they perceive that it will allow them to be visible and achieve a dominant social position. In this way, these media representations can be seen as encouraging young people who want to escape social marginalization to enter or remain in drug trafficking.[8]

Journalism and illegal drugs, a complex relationship

- Name: **Daniel Font Noguerol**
- Affiliation: Energy Control collaborator and independent researcher
- Short bio: Dani Font works as a journalist in Barcelona. He holds a Ph.D in History of Science from the Faculty of Medicine, Autonomous University of Barcelona (UAB-CEHIC). Dani collaborates with Energy Control, a Spanish NGO focussing on harm reduction associated with recreational drug use.
- Abstract: Media coverage of drugs has a lot of deficiencies. Some of these deficiencies, such as the incapacity to specialize in a topic like illegal drugs, are related to job precariousness. Others, which I think are more problematic, with the lack of independence and especially, censorship. This one comes from different ways: the advertisers, the governments, the editor-in-chief or even self-censorship. Fortunately, in recent years different organizations have developed interesting initiatives, such as "*Desintoxicando narrativas*" (Detoxing Narratives) in Colombia, or "*Crackdown*" in Canada; projects which aim to contribute to changing the media coverage of drug use and markets and addiction. One such initiative in Spain with *Energy Control*, is based on the tenet that a change of perspectives would be positive for everybody, and in particular for journalists in terms of their ethical job satisfaction.

Mass Media



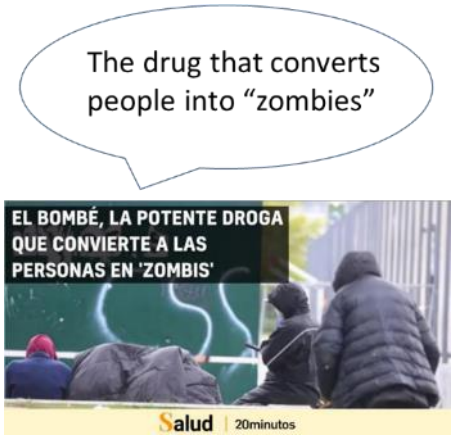
Mass media sources covering stories and providing information on drug markets and use have always spanned a number of genres, including traditional media such as TV news, press and radio, as well as cartoons, movies, advertising and propaganda.

For many people, mass media is the only source of knowledge about many aspects of our current lives, including drugs, and informs normative beliefs - showing us what are normal and abnormal behaviours. In this way, illegal drug users are often labelled as deviant by the media, linking consumers with criminality and other social problems.

Moral Panic and other challenges

Moral Panic

- …is when the media emphasises an issue in the community (like illegal drugs) which increases awareness and makes the public more fearful
- …is simply an episode of widespread social fear, which disproportional to the actual threat
- The media, according to Stanley Cohen (1972),[9] plays a massive role in enforcing moral panic



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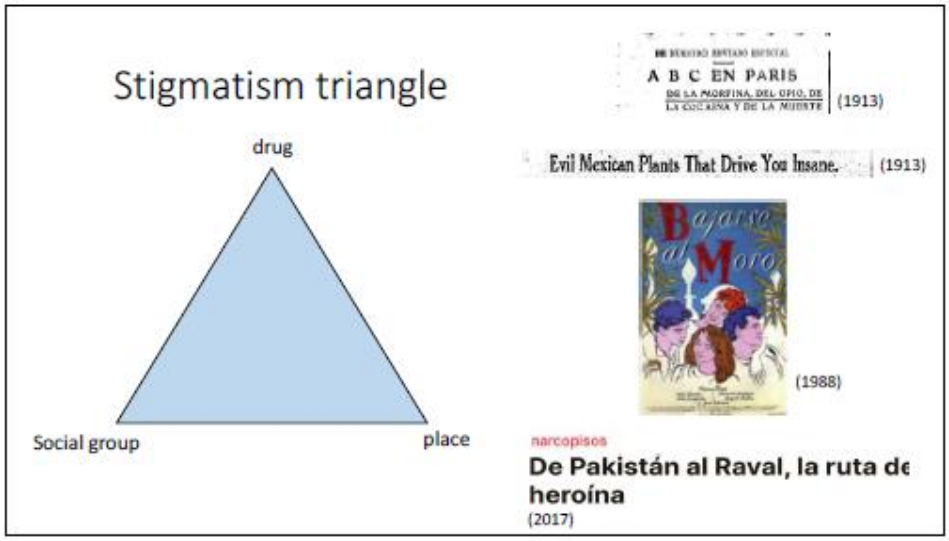


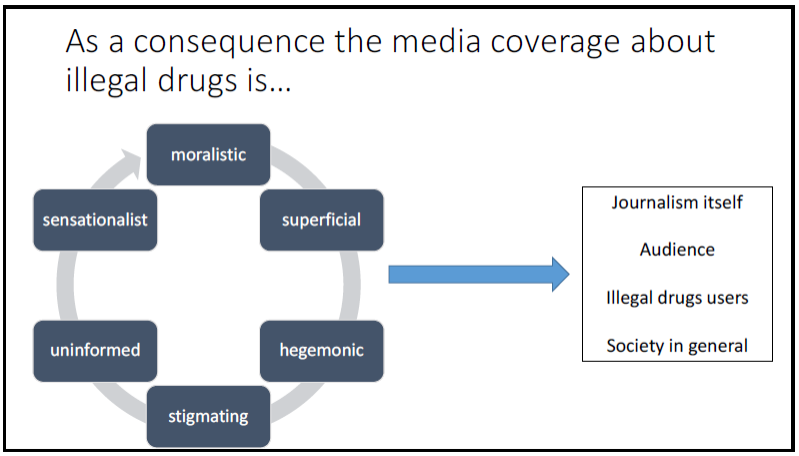
The moral panic evoked by reporting in the media in turn feeds into the stigmatisation of a specific group or location – in the area of media items on drug use and effects, this can be seen as consisting of 3 coordinates:

a social group (such as those made homeless, immigrants), a drug (e.g., crack or 'el bombé'), place (neighbourhood or venue). Examples can be seen throughout history and up to recent times.[10]

The process of reporting is complex, with a number of important barriers to sensitive and careful portrayal of drug issues on the personal and structural levels:

Personal factors	Structural factors
Immediacy – tight schedules of individual journalists may mean that adequate time for thorough investigation is not taken	SEO & clickbait - Search Engine Optimization and sensationalist cues to elicit clicks on an article (also may be used to extend duration on a page)
Lack of interest – a journalist may not have a personal interest in the topic or the well-being of the group reported on.	Job precariousness – increases risk-aversion and perpetuation of existing tropes.
Abuse of institutional sources – personal lack of respect of the informants of a piece, due to perpetuated stigma.	Lack of independence – a journalist may not be free to write in the stye they prefer.*
Fear of dissidence – linked to many structural factors.	Editor-in-chief – has the final say on the publication and tone of a piece of reporting.
Self-censorship – due to unperceived internal biases or prejudice, or fear of reprisals.	Censorship – varying degrees depending on the freedom of press regulations of a given jurisdiction.

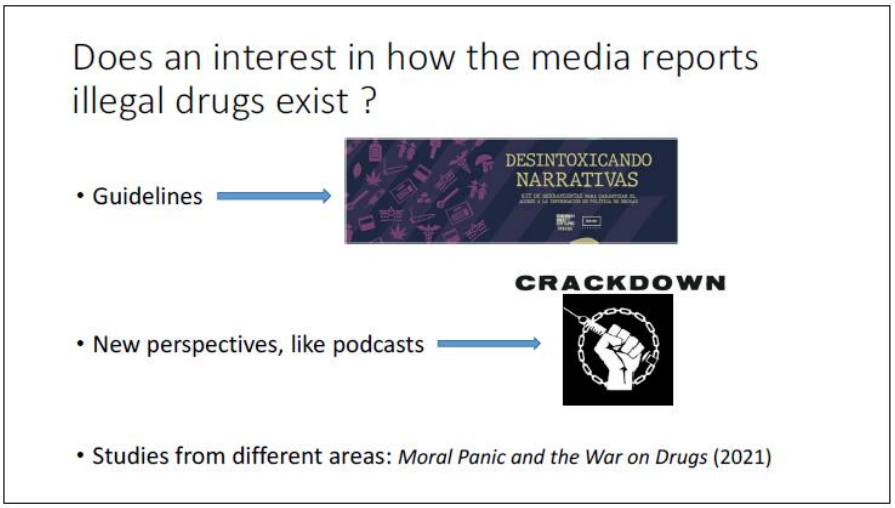
*One of the most important challenges is the lack of independence of newspapers and journalists. The bigger the mass media outlet, the more companies want to be advertised on their pages; subsequently, and unfortunately, these advertising companies can place conditions on the kind of information that is published, giving of commercial actors and market interests influence over the reporting published.



It is important to note the cyclical nature of these consequences: Poorly reported items being published has a large impact on journalists' credibility for their sources. Furthermore, mistrust can lead to a lack of plurality in the use of sources; some are overrepresented, such as institutional sources, while others (often experts by lived-experience) are often invisible or only appear because of their sensationalism.

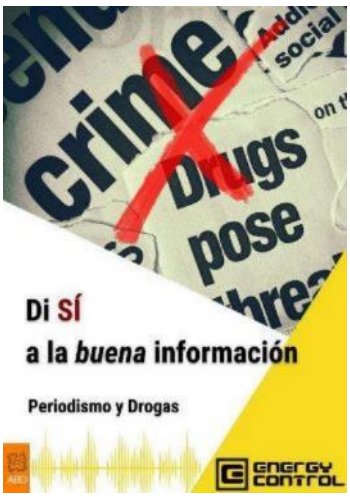
Alternatives

In recent years, various public and private entities and institutions that work in the field of drugs have prepared, from the different places in which they operate, manuals or guides analysing media coverage when reporting on drugs.



From Latin America, one of the most recent proposals is "*Desintoxicando narrativas*" (Detoxing Narratives)[11] prepared by Elementa DDHH, an NGO which works from its offices in Colombia and Mexico. This document aims to reverse the media approach to information on drugs in Colombia and offer "*a toolkit that proposes to leave behind the dynamics that harm public debate and suggest a different way of dealing with information on drug policy in communication media*", in order to heal the wounds of a media discourse loaded with myths, stigmas and contempt for scientific evidence.

Furthermore, bad practices in regard to information on drugs that appear in the media, have led to the emergence of initiatives at the international level in recent years, such as the Narcotic[12]a and Crackdown[13] podcasts (including the perspectives of PWUD), ethical codes developed by Latin American website *Dromómanos*,[14] specialized in harm reduction, and other studies of the phenomenon,[15] that show how another more respectful way of reporting on drugs is possible.



The Spanish government recently issued a statement that any professional working with people who use drugs must be very careful with their language to avoid stigmatizing people. Following on from this, Nuria Calzada, coordinator the Spanish NGO Energy Control partnered with Dani Font (independent journalist) to develop the manual '*Di SÍ a la buena información'* (Say 'yes' to good information)[16] with the objective of creating a guide not only with a critical view of media coverage, but which could be useful and practical for journalists, to improve their practice. The overall aim is that every journalist assumes their responsibility as part of society and does not contribute to creating fear, spreading myths, stereotypes and moral panic.

The document includes concrete guidance on positive adjustments that journalists can make to improve their reporting of drug-related issues: get training in reporting principles, expand sources, include the voice of people who use drugs, avoid stigmatizing language, use coherent audiovisual resources, do not be afraid to propose other approaches, be aware of your responsibility.

The guide also includes resources (other guidance and documents from international sources) and annexes (e.g., a table of stigmatizing language and alternative phrases) to support this transition to better reporting.

Summary of Outcomes

- Systemic solutions to the problem of biased/unethical reporting on drugs:
    - Co-create: include more/new perspectives and voices
    - Education: improve journalists' and communicators' knowledge in health, addiction, and other fields
    - Campaigns: avoid any stigmatizing language or discriminatory audiovisual material
    - Promote: deontological code ("duty of care") / accountability / social responsibility for journalists
- Expected benefits of adopting a more ethical approach to reporting on drugs:
    - for journalists: in terms of self-satisfaction / professional esteem
    - for journalism: gain credibility and respect for a very discredited profession (in a recent national Spanish survey, which asked people to rate the value professions, journalism was rated second worst, just behind politicians).
    - for future readers (including subjects of the piece)/public: work can become a reference point for future journalists
    - for society: reduce social conflicts in communities instead of exploiting them for commercial gain.

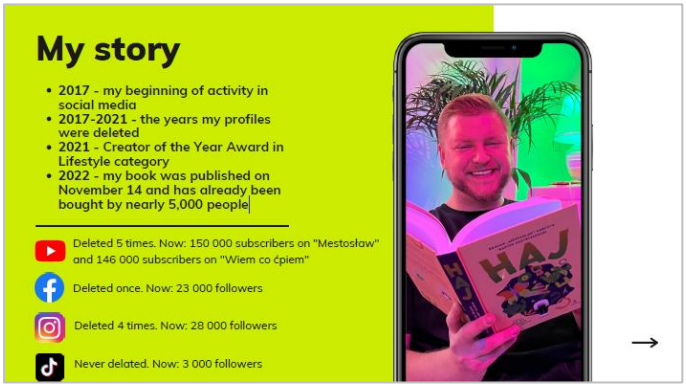
Harm reduction and addiction in social media. How to do it right?

- Name: **Damian "Mestosław" Sobczyk**
- Affiliation: PR Manager, Polish Drug Policy Network
- Short bio: Activist, educator, influencer. Creator of two YouTube educational channels on harm reduction and drug policy: "*Mestosław*" and "*Wiem co ćpiem*" (translates as: I know what I'm doing) (a total of 295,000 subscribers). Winner of the title "Creator of the Year 2021 Lifestyle" at Influencers Live Wrocław & Onet. Co-author of the book "*Haj*" (high) about drugs, harm reduction and addiction. A graduate of European Studies and Pedagogical College at the University of Warsaw. Member of the Polish Drug Policy Network and Social Drug Policy Initiative. Co-founder and board member of the Polish Psychedelic Society. Social expert in the Parliamentary Team for the Legalization of Marijuana.

- Abstract: Social media is often one of the cheapest, fastest and most effective ways to reach people with information. Unfortunately, platforms such as Facebook, Instagram, YouTube, TikTok are not always able to distinguish whether a given content is educational, harm reduction and addiction prevention oriented. For this reason, creators and non-governmental organizations face problems such as deleting their profiles or cutting the reach of their content. That is why it is so important to learn the detailed regulations and guidelines of individual platforms as well as the experiences of creators in order to create content that has a chance to reach many people.

Mestosław's story:

The personal story of the speaker, with challenges and successes over the last 5 years, attests to the difficulty of providing clear and explicit harm reduction information via social media, and the need to reform platform regulations to better serve health and safety purposes.



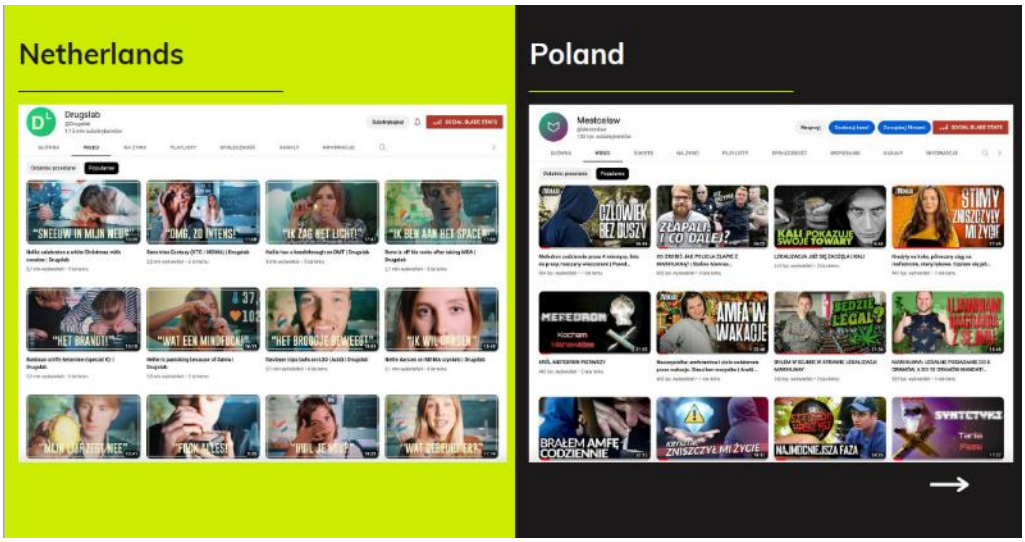
- 2017 - Beginning of activity in social media
- 2017-2021 - the years profiles were deleted
- 2021 - Creator of the Year Award in Lifestyle category
- 2022 - Book was published on November 14 and by 24 Nov had already been bought by nearly 5,000 people

The author has learnt to work within the regulations where possible (although it is not always possible).

YouTube:

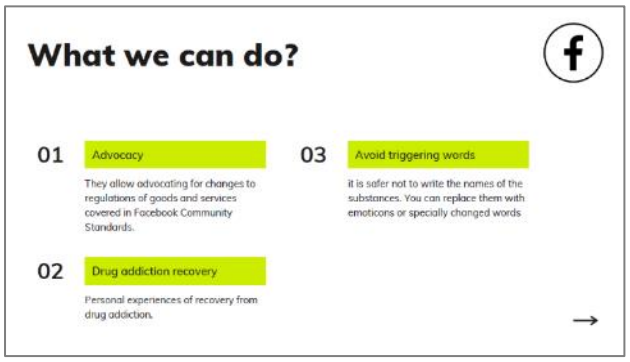
The speakers' YT harm reduction channels were deleted and reinstated 5 times. Now: 150 000 subscribers on "Mestosław"[17] and 146 000 subscribers on "Wiem co ćpiem"[18] (I know what I'm doing).

Some examples of working within these guidelines – Drugslab[19] from Netherlands and Mestosławfrom Poland.



Facebook

The speaker's Facebook page was deleted once and reinstated. Now: 23 000 followers.

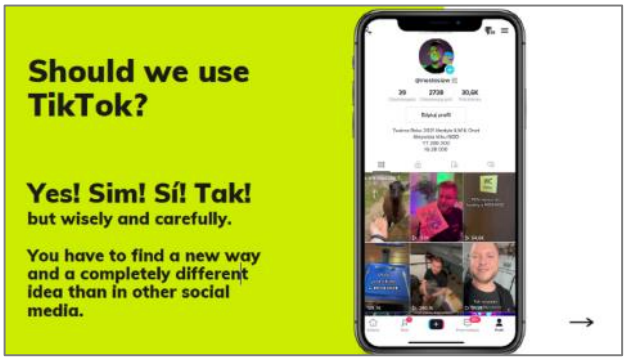


Instagram

The speakers Instagram content was deleted and reinstated 4 times. Now: 28 000 followers.

TikTok

TikTok does not allow the depiction, promotion, or trade of drugs or other controlled substances. Due to the clarity and severity of the TikTok guidelines, the speakers content was never deleted. Now: 3 000 followers.

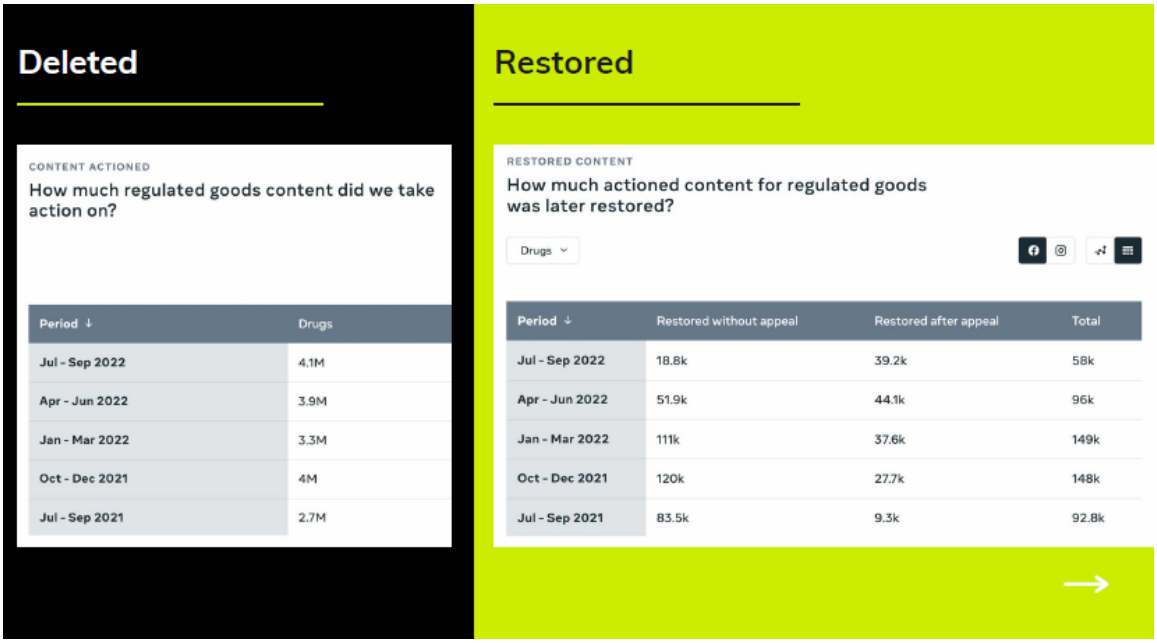


Online platforms such as Facebook, YouTube and Twitter increasingly control what you can see and say online. Algorithms track user activity, and filters and moderators react to rule violations. The legitimate aim of this is to fight harmful content - such as hate or incitement to violence. However, sometimes legal and useful materials are removed, such as publications documenting police brutality and other human rights violations, reports on social protests, or harm reduction initiatives.

Such unreasonable, excessive removal of content based on the internal regulations of platforms is called private censorship; which, in practice places a significant limitation on the range of published materials. As a result, these private companies have power over the flow of information and views expressed online, which

can be often used without any control or accountability. A lack of transparent rules for content moderation by platforms and the lack of effective appeal procedures for blocked users mean that it is difficult to question the platform's decision to remove the material or the entire account. However, there are examples of the blocking of valid content being contested in courts of law and being reinstated which can bring about social change in the online arena.

In 2019, the District Court in Warsaw prohibited Facebook from removing fan pages, profiles, and groups run by Civil Society Drug Policy Initiative (SIN, a Polish non-profit organisation promoting evidence-based drug policy) on Facebook and Instagram, as well as from blocking individual posts.[20] There have been similar legal cases since:



In conclusion, depictions of drug use or addiction for harm reduction and educational purposes can fall foul of the censorship protocols of social media platforms and be removed. Careful and informed decisions on content management by those generating material can often avoid this situation, although not entirely. Occasionally coordinated legal responses (at a national and international level) are needed to argue in favour of removed content, as part of an ongoing advocacy for digital rights.

ACEs to Assets

- Name: **Dave Higham**
- Affiliations: Founder & CEO The Well Communities / Founding member for College Lived Experience Recovery Organizations (CLERO) / Third Sector Executive Board Member for Cumbria / Board member for Combating Drugs Lancashire & Cumbria
- Short bio: Dave Higham Founder and CEO Of the Well Communities. Dave established The Well with his own money and driven by a passion to bring services to people differently. In the last five years, The Well has grown to become one of the leading providers of Lived Experience Recovery Organizations in the UK. The Well has now broadened its reach, establishing communities in Cumbria, Lancashire & Liverpool.
  Dave, an ex-PPO (prolific offender) and trauma survivor spent 25 years in addiction and alcoholism and spent more time in prison than he did in the community. Dave achieved recovery in prison in 2005 and has been a champion of Lived Experience ever since. Dave, along with other colleagues set up the CLERO in 2020 with the aim of uniting and creating a movement, a set of standards and providing a voice for LEROs (Lived Experience Recovery Organizations) across the UK.
  Dave is the author of the book *Rat Hell to Rat Park: The Core Conditions for Recovery*[21] & a contributing author to *The Bigger Book of Trauma*.
- Abstract: When we see addiction portrayed in the media, we are frequently met with the narrative that the person is the problem and how can we fix this problem. The pictures portray people with Adverse Childhood Experiences (ACESs) as the junkie/addict/alcoholic (labels) in a negative way, but never the person, or the person's name; and rarely mentioning that if supported they can become assets in our communities.
  I will ask and answer three questions:
  - When I look at people in addiction, do I see them as problems to be fixed or assets?
  - Why the addict or why the pain?
  - How do we create the right conditions for people to recover?

  I will do this by presenting the person not the addict. I will show the evidence of how drugs & alcohol becomes an option in people's lives, and I will show that if we create the right conditions anyone can recover and break free from crime and addiction. This will all be shown through a lived experience lens.

Dave's story:

Trauma and abuse were a regular part of my childhood and growing up. The constant exposure to trauma led me to start using drugs and alcohol at a very young age. I think I was about 11 when I first inhaled something. The concoction of continuous trauma and experimenting with substances eventually led to crime and over 25 years in and out of prison. Now, I am an ex-offender and in recovery, and I am proud to say that I have been drug-free for almost 15 years.

When I came out of prison, I was entirely alone. I had spent 25 years of my life in and out of jail. I had racked up more than 100 criminal convictions. I was unemployable. I was brutalised and I was by myself with nowhere

to go. This is a familiar story amongst addicts and offenders, but I set out to change this narrative. I set up the Well Communities as a safe space for people to get clean and build a sense of community. Through dedication and the support of a network of committed individuals, we have taken The Well Communities[22] from a drop-in session in a community centre to providing 30 beds in Barrow-in-Furness, 52 beds across the Northeast and another 21 coming in Cumbria and Morecambe Bay. Here substance misusers and ex-convicts can access safe accommodation and the support of our trained staff.

Lived Experience Recovery Organisation (LERO) beginnings

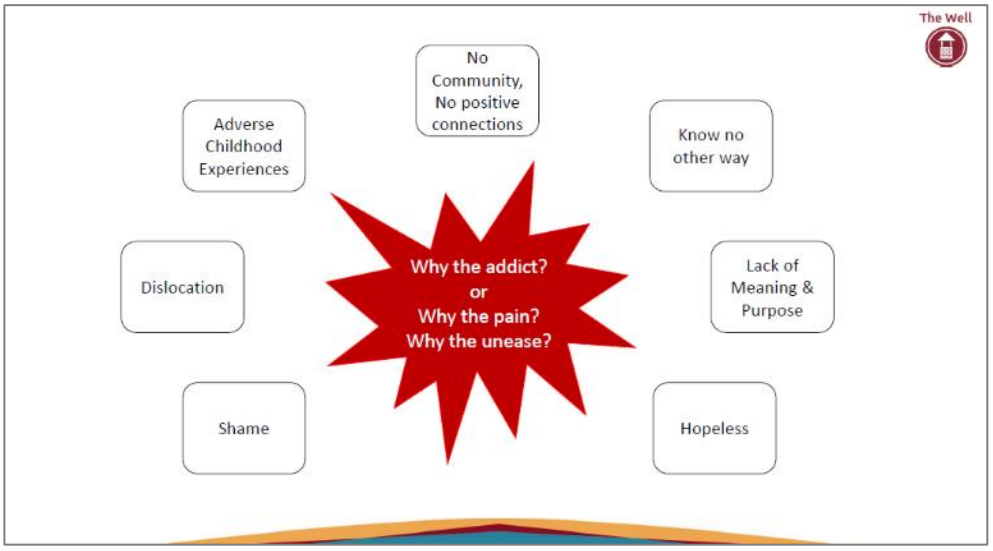
- Set up November 2012 as a Social club for People of Live Experience (POLE)
- LERO, grassroots peer-to-peer organisation, organised and managed by people from the community they serve
- Done by, not done to
- Experts on tap, not on top
- Fully committed to ABCD (Asset-Based Community Development) principles[23] and co-production
- Hub & Spoke model of recovery[24]

Addiction through the eye of the media

What do we see - Problems, Solutions or Assets?

Members of the Well & ACEs

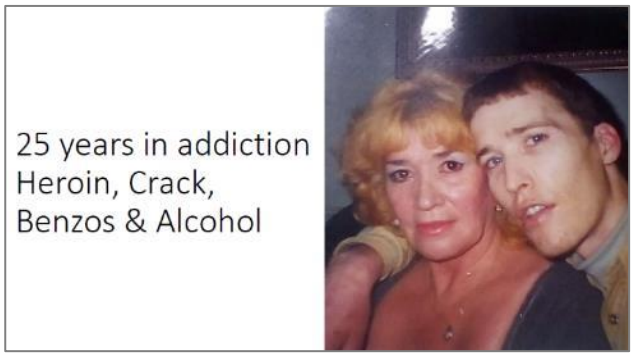
In a sample of Well staff & Peers it was found that an average of 8 of the 10 ACES had been experienced alongside other adverse experiences such as deprivation.



- GP 8 x distinct Adverse Experiences in 1 Year 200+ incidents

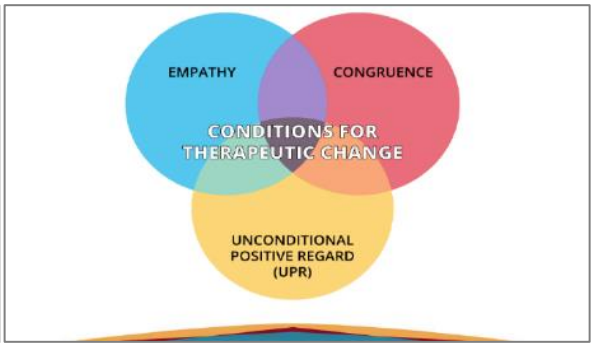
- KH 10 x Distinct ACEs and in 1 year 500+ incidents

- DH 8 x distinct ACES and in 1 Year 200+ incidents



How do we create environments for people to recover?

Dave Higham's approach in The Well has been influenced by the well-known work of behavioural pharmacologist Bruce Alexander in the late 70s, which implied that addictive behaviour (self-administration of morphine in rats) was strongly determined by their physical and social surroundings. [25,26]



Combining this assumption with the three core conditions of Person-Centred Therapy, originally identified by Carl Rogers in the 1950s, Higham has developed his "Core conditions for recovery", laid out in his recent book:

Dave Higham
Book: Rat Hell to Rat Park
Core Condition's for Recovery
Manifesto for Change

Core Conditions for Recovery

Developed by the people we serve (bottom up)

1. Lived Experience
2. Connection
3. Meaning & Purpose
4. Community
5. Trauma Safe Environment (TSE)
6. Hope

Lived Experience (LE)

"*Lived experience is at the core of mental illness. No one truly understands what happens within a psychiatric problem except the person who experienced it*" (Mark D. Rego, MD).[27]

Higham highlights the importance of lived experience (LE) to guide recovery practice and as a therapeutic element in itself.

- LE is the first seeds of hope
- People identifying with People Of Lived Experience (POLE)
- POLE get a sense of belonging with other POLEs
- Partnerships with LEROs or/and LE integrated into the work force
- Shared learning and role modelling
- Professionals with their own lived experience do not have the same power imbalances commonly found in service provider user relationships

Connection

"We invite compassion into our lives when we act compassionately toward ourselves and others, and we feel connected in our lives when we reach out and connect." (Brene Brown: The Gifts of Imperfection)[28]

- Relationships and connections we make are the building blocks to healthy partnerships, communities, and individuals
- The need for real authentic connections in order to feel safe
- The need to be around people to be seen, heard & valued
- Authentic relationships within the team Honesty, Compassion, Openminded & Supportiveness
- The need to be one team, not a ME attitude but a WE

Meaning & Purpose

Enabling people to find meaning and purpose through a sense of belonging enhancing their wellbeing in a way that supports them to become the best version of themselves.

- Relationships & Family
- Feeling valued, wanted & needed

- Work, Hobbies & Sports
- Sense of direction, having goals
- Our recovery begins to give us meaning and purpose we want to better ourselves
- We help people move beyond just stopping drugs or alcohol, to reach great heights

Community

The individual, family and community are not separate; they are one. To injure one is to injure all; to heal one is to heal all (William White)

- We can't build a community around a service, we have to build a service around a community
- Developing a recovery community is fundamentally about resourcing and supporting diverse communities to address their own needs
- The community has the ability to heal itself and sustain people's wellbeing
- We have become consumers and clients, not citizens and neighbours

Trauma Safe Environment (TSE)

We consciously create a safe, trusting and non-judgmental environment, promoting a culture of mutual respect and unity (Dave Higham).

- We recognise and except that people have survived multiple ACTs but will view the world and ME as a dangerous, frightening place
- TSE in our community and within our work place
- None judgemental with our members and within our own staff team?
- Unconditional positive regard, Empathy & Congruence (bring yourself)
- Trust, Honesty & Respect

Hope

Hope is created and generated by having lived experience at all levels of the organisation , at all stages of recovery.

- If people don't have HOPE they are hopeless
- Organisationally believe people can and do recovery/change
- The individual believes they can change
- Instil the belief in people the possibility of recovery
- Having dreams and aspirations
- Stop saying abstinence is too high a bar to reach

Through this model, as it is deployed in The Well, the results have been positive:

- 1000s of people supported since the initiative began
- 392 people stayed in The Well accommodation
- 4,000 members are a part of the community
- 68% stay drug & alcohol free
- 60% of our workforce are the people that previously used our service
- 52% of offenders do not re-offend

Conclusions

The Lisbon Addictions 2022 session *Media Representations and depictions of drug use, addiction and drug markets* addressed the topic of such depictions through 4 different perspectives, as presented by 4 different participant profiles:

1. Examination of the diversity and role of the media in the representation of drug trafficking, focusing on Mexico, from the academic perspective (gender and cultural studies); and the importance of this as one of the main references to interpret drug trafficking and drug use in the real world, and drawing in youth attempting to escape poverty and deprivation.[7]
2. Overview of reporting on drug use and markets and the influence this has on moral panic and public perceptions, from a journalism perspective (collaborating with a harm reduction and prevention NGO); presenting projects which aim to contribute to changing the media coverage of drug use and markets and addiction to address the current deficiencies in this field brought about by personal (training, time, prejudice) and structural factors (editorial bias, commercial power). The example extended was the manual '*Di sí a la buena información*' (Say 'yes' to good information).[16]
3. Introduction to the challenges of delivering reliable health promotion and harm reduction in the area of drugs via social media channels, from the perspective of an activist, educator, influencer and content creator. Social media platforms are not always able to distinguish whether a given content is educational, harm reduction and addiction prevention oriented; and, therefore, it is so important to learn the detailed regulations and guidelines of individual platforms as well as the experiences of creators in challenging wrongly blocked content.
4. Insight into the importance of positive rather than negative and stigmatising representations of recovery, to the therapeutic process and societal progression, from the perspective of the founder of a Lived Experience Recovery Organisation (LERO) and recovery community. [22] The speaker emphasised that a shift in perspective was needed, to allow those with lived experience to go from being held back by their ACEs (Adverse Childhood Experiences) to being recognised as community assets.

The different perspectives combine to give us a rich and comprehensive, yet strangely coherent, view of the scope, pervasiveness and importance of media representations of drug use, addiction and drug markets, with a number of repeating messages running through the 4 talks.

Key messages

- Depictions of drug use, addiction, markets and trafficking have decisive impacts on the beliefs and behaviour of individuals and societies.
- Inaccurate glamourising representations can influence those marginalised or in poverty to participate in drug market systems that perpetuate inequalities (both between individuals and geopolitical).
- Representations can also stigmatise and marginalise already vulnerable groups, especially when ignoring the voices and lived experience of people who use and drugs. Such overtly negative depictions can cause moral panic, perpetuate unfounded prejudice, be the basis of ineffective policy and lead opportunities to recognise the value of that experience.
- Initiatives exist to improve representations of drug use and markets:
  - In mainstream media – guidelines and co-creation initiatives to improve press activity and reporting
  - In social media - advocacy for the digital rights of harm-reduction content creators to represent drug use accurately can improve the educational value and uptake of such information
  - In society – LEROs show the value of those with lived experience as assets to promote recovery and societal cohesion.

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THEME 4: Global diversity in public health responses

Background: Overview and aim of the group

This group highlights the diversity of public health responses to the challenges arising from drug use and addiction and what these lessons can be learned from one another. Potential pre-identified issues included the effectiveness of different approaches in different settings and populations; how culture and setting influence public health responses; what factors contribute to implementing evidence- based, effective policy in different contexts; issues of transferability; and what lessons can be learned from countries/regions other than those which have traditionally dominated research and debate. Settings and contexts could include different cultures, geographical settings (regions or rural vs urban), populations, or healthcare setting (e.g., community vs clinical).

The aim of the group was two-fold: to prepare 1) a conference session for the Lisbon Addictions 2022 conference around the theme of Global diversity in responses to addiction and 2) a briefing paper based on original research in the defined area; with the paper to be expanded into a journal article for submission to an open-source journal.

Introduction to the topic

Drug policy can impact different individuals and communities in different ways, including differential impacts on different age groups, socioeconomic groups and genders, among other traits defining individuality.

Official global statistics on drug use and related criminality show a disproportionate representation of men, and this influences drug policy and programs which are often created for men who use substances. However, women comprise one-third of people who use drugs (PWUD) globally, and account for one-fifth of the estimated global number of those who inject drugs.[1] In addition, the rate of fatal overdoses among women has increased by 260-500% in the last two decades.[2] Women also suffer serious long-term social and health consequences of incarceration related to drug use and drug-related offenses which are different to those suffered by men.[3,4,5]

Women face particular challenges related to drugs including gender, biological sensitivity, effects of drug use during pregnancy (e.g., neonatal abstinence syndrome, low birth weight, and premature birth), motherhood, gender-based violence, higher involvement in sex work, higher prevalence of (sexual) trauma, double stigma (being discriminated against for being a woman and a drug user) with serious psychosocial consequences.[6] These challenges require gender-specific policy responses. Therefore, it is important to assess whether women who use drugs currently receive attention in drug policies and programs and in what ways. Assessing gender-specific elements of national drug policies may help to address the particular challenges faced by women who use drugs and improve access to rights- and evidence-based harm reduction, treatment, rehabilitation, and social reintegration programs adapted to the needs of women. Such drug policy should be well-aligned with the objectives of UN sustainable development goals (SDG-2030), which include gender equality and empowerment.[7]

Women who use drugs are typically stigmatized for their drug-use, marginalizing them from mainstream society. This can cause fear of legal sanctions and loss of children making them less likely to seek treatment. Women report social stigma in private and professional contexts as a barrier to seeking and accessing treatment.[8]

There is near consensus in the international literature that rates of addiction to illicit substances and alcohol are rising among women, that women may be at risk of more quickly developing severe forms of dependence

than men, that they suffer more complications, and less often seek out and receive treatment than men.[4,5,9] Identifying and understanding gender differences in drug use and addiction problems is a starting point; it can help shape gender-sensitive policies and practices which respond to the needs of women who use drugs (with multiple roles, including mothers). A further area which has a significant effect on women who use drugs and their children is that of approaches which punish rather than support these women.[9,10,11,12] The stigma and fear associated with losing child custody, and other punitive legal measures, often deter women from seeking treatment. In particular, quasi-compulsory treatment delivered through child-protection services, practiced in several countries which lacks adequate scientific evidence is concerning.[13]

In recent decades, awareness of the importance of incorporating gender perspectives into national and international drug policies and practices has grown, resulting in numerous publications and documents on drug policies and national and international drug strategies that give an increasingly significant place to gender perspectives. The latest publications of the Pompidou Group related to the gender perspective in drug policy put gender sensitivity in drug responses into the focus of policymakers and practitioners, with an emphasis on integrating specific gender needs when providing services, as well as protecting the rights of children in families affected by substance use. [6,14]

At the supra-national level, the UNODC and WHO have developed international standards for treating drug use disorders to guide policymakers, health and social services managers, and practitioners working with PWUD; some of which advising treatment services to be gender-sensitive and oriented toward the needs of populations they serve. These recommend that such services for women, pregnant women and women with children be tailored to their needs, non-discriminatory and comprehensive; with regards to all aspects of intervention design and delivery: including location, staffing, program development, child-friendliness, and content. [15,16] Maintaining or improving relationships with children may play a central role in women's drug use and recovery .[16] One of the WHO guidelines, on identifying and managing substance use and substance use disorders during pregnancy, addresses risks associated with substance use during pregnancy, and includes a pocket guide to support professionals working with pregnant women to provide effective clinical services.[17]

At the national level, several high-income countries have developed national guidelines covering substance use disorders in pregnancy, but most low- and middle-income countries lack such guidance. The WG4 study aimed to analyse nine countries' national policies and programs from the perspectives of their sensitivity towards women, pregnancy, and motherhood, with two broad objectives:

(1) to systematically explore national-level drug policies/strategies/action plans' sensitivity and responsiveness to women, pregnancy, and children; and
(2) to examine the adherence of drug policies/strategies/action plans with international guidelines for gender sensitivity in drug policy.

Methodology: Process to develop the briefing document

The working group consisted of 17 active members (Female: 10, Male: 6, Other:1) from 13 different countries, representing academic, civil society, policy and clinical profile organisations.

The general theme and working process of the group was decided in consultation with all active members through iterative online meetings and an in-person meeting at the Lisbon Addictions Conference site.

An adapted OPERA method was used to determine a specific theme to develop the article: the group developed six ideas that could be developed further. A Google Form was shared with the group to rank these ideas based on priority and feasibility, and to comment on the suitable type of article and potential journal(s). The best-ranked theme was *Drug Policies' sensitivity towards women with children and pregnancy*. This theme

was further discussed again in the next meeting, to develop the group's scientific objectives and start recruiting speakers for the Lisbon Addictions conference session.

Conference Session development

Over the summer of 2022, the working group held online collaborative meetings aimed at identifying the key themes of interest.

After discussion with the conference organisers, it was decided that the session should take an anthropological perspective. Through the working group process, the topic was refined to explore drug policy from the perspectives of gender, service providers, sensitivity to youth, and people who use drugs; and 3 key areas were identified for speaker recruitment:

- Gender-sensitive drug policy
- Youth-centred drug policy
- Drug policy and the perspective of people who use drugs

Research for the article[†]

The more general theme of policy sensitivity for vulnerable groups was further refined to focus on the topic of drug policies' sensitivity towards women, pregnancy, and motherhood; resulting in the development of specific research questions, with the overall aim of examining drug policies' sensitivity at the national level:

- Q 1 Does the nation's drug policy mention women-, children-, women with children-, and pregnancy-specific needs?
- Q 2 What issues and concerns are raised for women with children and pregnancy?
- Q 3 How do the drug policy documents plan to address the concerns?
- Q 4 Do these policies conform with the international standards proposed by various international agencies (e.g., UNODC, WHO, Pompidou group)?

The research team came from a diverse professional background and nine countries. The team comprised nine researchers, clinicians, and academics from diverse professional backgrounds. Three were addiction psychiatrists, two were drug policy experts, and there was one each from medicine, public health, psychology, social pedagogy, and social anthropology. The members were affiliated with public healthcare sectors (n=3), academic institutions (n=3), and research bodies (n=3). The common denominator was their expertise in the public health concerns associated with drug and alcohol use and drug policy. The team members were from nine countries from different global regions: Europe (5 countries), Eastern Mediterranean (2), Asia (1), and Africa (1).. Each member contributed to collecting, organizing, and reviewing drug policy documents of their country of work. The group members collaborated to perform a summative content analysis of published national drug policy documents, action plans, and strategies. All the national-level drug policy documents were examined for the selected countries. The search terms used were "women," "children," and "pregnancy". Resulting themes identified were presented as frequencies, as an attempt to explore usage indicating the relative focus of the policies on specific themes across the three populations of interest. The group developed a thematic map to understand how national-level drug policies conceive and address specific concerns of

[†] For a full account of this work, please see: Ghosh A, Jerkovic D, Ignjatova L A, Bruguera C, Ibrahim D I, Okulicz-Kozaryn K, Maphisa J M, Martinelli T F, Neto A, Canedo J, Gordon R (in press) Drug Policies' Sensitivity Towards Women, Pregnancy, and Motherhood: A Content Analysis of National Policy and Programs from Nine Countries and their Adherence to International Guidelines. Addiction Science & Clinical Practice. (forthcoming)

women who use drugs; and adopted the UNODC checklist for gender mainstreaming to assess the national-level policies' adherence to international guidelines, as described in further detail below.

Theoretical framework

The content analysis was not theory-driven, but it was data-driven. Preconceived coding categories were not used - codes and names for codes were allowed to emerge from the data. Researchers immersed themselves in the data to form new insights through the codes.

Sampling and sample size

Twenty published national drug policies and related documents from nine countries (Botswana, Croatia, Egypt, India, North Macedonia, Netherlands, Poland, Portugal, and Spain) were reviewed.

Technical approach

To search the relevant text matters from the policy documents, the following keywords were used "women," "gender," "children," "minors," "underaged, " "pregnancy," and "motherhood." For searching non-English documents, keywords were translated into the language of the concerned policy document. Non-English language texts were translated into English. Text was extracted into a Google Spreadsheet. Content analysis was performed on these texts/excerpts.

Analysis

After thoroughly reading the text and data immersion, two lead authors (DJ and AG) generated codes to indicate specific concerns for women, pregnant women/pregnancy, and women with children. Codes were also generated for the strategies discussed to address these concerns. The unit of analysis was words, phrases, sentences, and paragraphs of text extracts. Coding categories were derived directly and inductively from the raw data using the constant comparative method. The coders checked the coding consistency across documents. An explicit or manifest coding approach was used to minimize the effects of subjective judgments on analysis. Coded words and phrases were sought and the analysis did not go into the message behind the text. Frequently mentioned and similar codes were combined to generate themes. Coding discrepancies between DJ and AG were reflected upon and resolved by discussion. A repeat summative analysis by counting the occurrence of a particular theme in the reviewed policy documents was performed. This quantification was an attempt not to infer meaning but to explore usage. The quantitative information indicated the relative focus of the policies on specific themes across the areas of interest.

A thematic map was developed to integrate various codes and themes, understand how national-level drug policies are conceived, and further address the specific concerns for women, pregnancy, and motherhood.

An adapted version of the UNODC checklist for gender mainstreaming in projects/programs was used to assess the national-level policies/strategies/action plans adherence to international guidelines.[18] The original checklist has 14 items which rates adherence as "yes" or "no." The items are classified into three groups: situation analysis (n=5), plan description (n=3), and plan management (n=2). Situation analysis asks about the magnitude of drug problems among women, pregnant women, and women with children, and seeks to understand whether the differential impact of national strategies and international best practices are considered and how the policy aims to reach and empower women with drug misuse. Plan description includes

the locus of care, provision of gender-sensitive care, and gender-responsive indicators. Plan management comprises logistics and financial support, and implementation measures. The checklist was adapted to include only 10 items; three unrelated items were removed (i.e., staffing, resource mobilization, counterpart capacity) and two items were combined. The items were rated on a seven-point Likert scale ("strongly disagree" to "strongly agree").

Using a bespoke data extraction sheet, the researchers also entered some descriptive data for each drug policy documents: year of publication, whether or not updated, and the policy implementation status; as well as additional information on other national-level policy documents that discuss gender-specific concerns among PWUD, their experiential account of potential reasons for the insensitivity of the national policies in their countries, and the policy-practice implementation gap.

Results, Conclusions and Key message on Theme 4

WG4 Conference Session

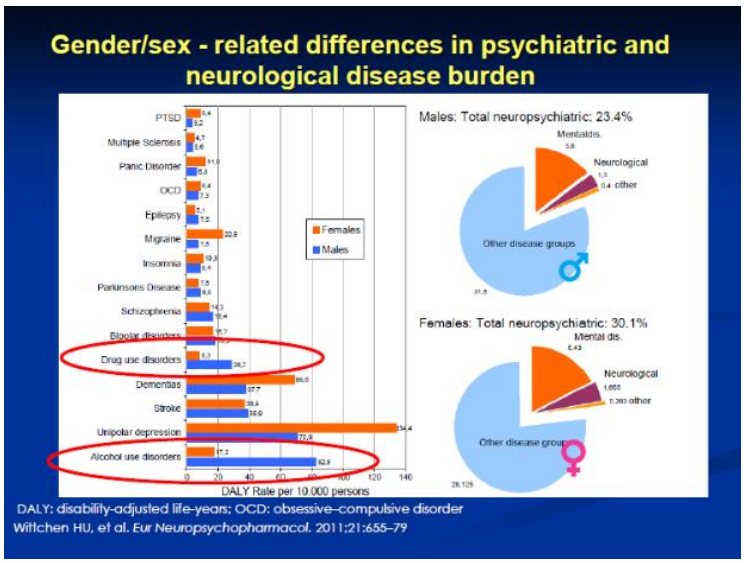
The resulting thematic session in Lisbon Addictions 2022 explored drug policy from the perspectives of gender, sensitivity to youth, and people who use drugs; and included presentations from three experts from different parts of the world. The presentations were followed by a discussion and a question-and-answer session, moderated by session chairs - Abhishek Ghosh (Associate Professor of Psychiatry & Addiction Psychiatry, Postgraduate Institute of Medical Education & Research, Chandigarh, India) and Dijana Jerkovic (Postdoctoral Scientific Assistant, Department of Special Needs Education, Ghent University / Manager and Researcher, FENIQS-EU Project) – to further explore these themes and potential policy responses with conference participants.

Resulting content

Gender-sensitive drug policy

- Name: **Gabriele Fischer**
- Affiliation: Associate Professor and Medical Director of the Addiction Clinic, Dept. of Psychiatry and Psychotherapy, University of Vienna.
- Short bio: Gabriele Fischer is Head of the Addiction Clinic. During her long research career she published > 150 scientific papers with > 400 presentations. For many decades she has been engaged as a consultant for UN, WHO and other international organizations, in addition to her duty as member of the scientific board of EMCDDA. Next to research studies in neuropsychopharmacology, her special science topics include human rights issues & Gender related aspects.
- Abstract: The presentation addressed the following questions and topics: What impact does the drug and alcohol policy have on women? What does a gender-sensitive policy look like? Are there case examples of gender-sensitive policies? Is there any formal evaluation of those policy measures?

The presenter gave an introduction to the gender and sex-related differences the burden of in psychiatric disorders, including addiction/SUDs:

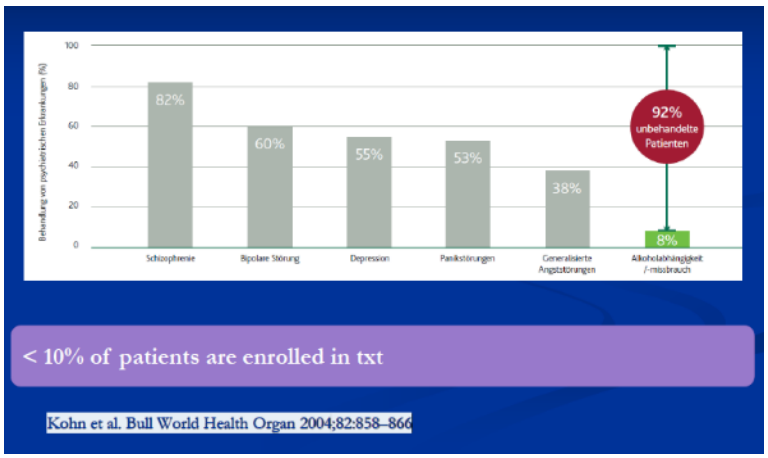


She also highlighted the main barriers to treatment entry and recovery for women with SUDs: [19]

- Women more frequently than males inadequate health insurance & poverty
- Treatment entry is less facilitated by social institutions (employers or criminal justice system) for women
- Women view SUD more negatively and are more concerned about social stigma
- Women with SUD: relationship with drug abusing partner
- Women are less likely than men to have active social support (e.g., from a partner)
- Retention is lower in women compared to men: opposite to all other medical areas
- Pregnancy: massive stigma associated with SUD in pregnant women, lack of services for pregnant women, fear of losing custody, fear of prosecution; lack of available, affordable childcare

<u>Alcohol</u>

Dr Fischer noted that AUD is a highly undertreated psychiatric disorder, among both men and women.



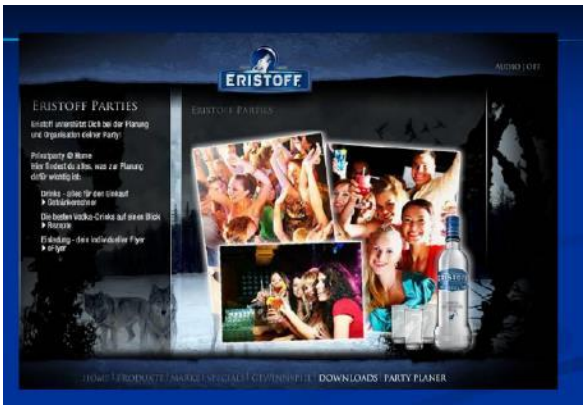
She highlighted knowledge/elements that would be relevant to an alcohol dependence gender-sensitive prevention policy:

- Alcohol dependence prevalence rates 3 : 1
- Consequences more severe and rapid in women:
    - develop higher alcohol concentration after equivalent amounts of alcohol/kg
    - show a faster progression of alcohol dependence (Telescoping)

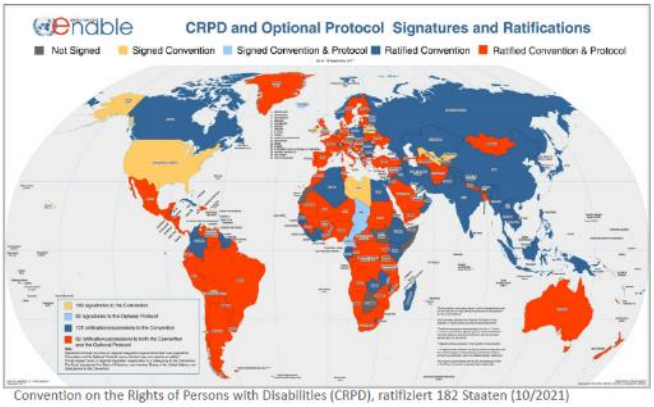
- have heightened susceptibility to organ damage
- Have increased sensitivity to alcohol induced brain damage

- Women are less likely to have received treatment for alcohol dependence:
- Gender differences in comorbidity :
  - Higher rates of co morbid major depression : 52 vs. 32
  - No gender difference in anxiety prevalence but higher severity for women
  - Lower rates of comorbid antisocial personality disorder: 20 vs. 49

She noted that there are already gender-sensitive marketing policies among alcohol industry actors:

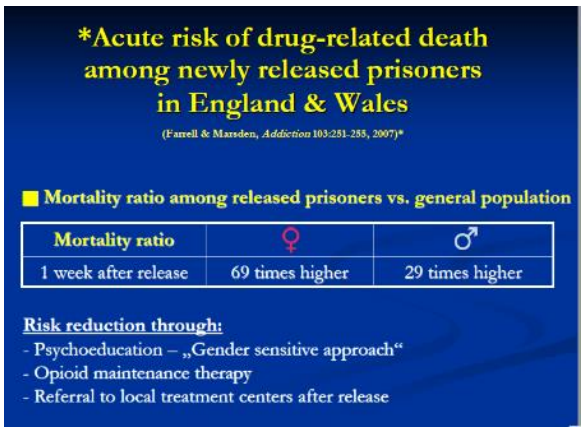


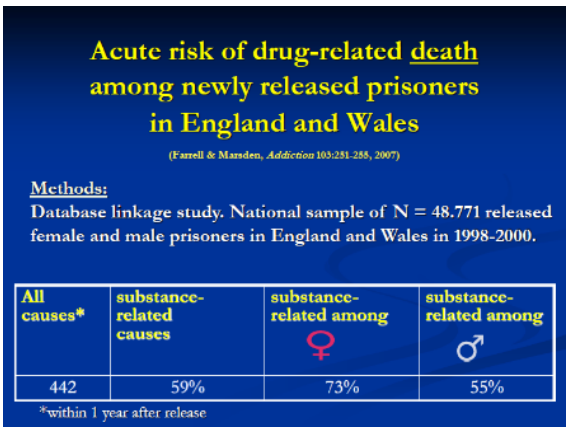
The speaker highlighted the important place of human rights as a motivator for gender-sensitive policy and that this is enshrined in the charters of the United Nations, including that of the Convention on the Rights of Persons with Disabilities – aimed at protecting "Persons with disabilities include those who have long term physical, mental*, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others (*This includes substance use disorder as a chronic relapsing psychiatric disorder, not following an infectious disease model).



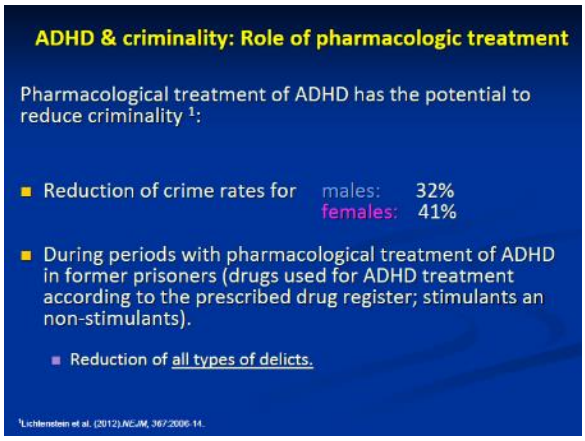
Convention on the Rights of Persons with Disabilities (CRPD), ratifiziert 182 Staaten (10/2021)

In particular, the global prison populations are especially at-risk to SUDs (especially for illicit drugs), and this has a severe and marked effect on the (mental) health of female prisoners:





On a cautiously positive note, there are also promising results for some pharmacological treatment to prevent criminality related to addiction,[20] although to achieve this, the systemic gender biases in the very methodologies of biomedical research and provision of care has, for some time, needed to be challenged.[21]



Youth-centered drug policy

- Name: **Danya Fast**
- Affiliation: Assistant Professor, Department of Medicine and Associate Member of the Department of Anthropology at the University of British Columbia.
- Short bio: Danya Fast is an Assistant Professor in the Department of Medicine at the University of British Columbia (UBC) and an Associate Member of UBC's Department of Anthropology. She is also Research Scientist at the British Columbia Centre on Substance Use. Her current anthropological and community-based participatory research focuses on tracing the substance use and treatment trajectories of young people who use drugs in Greater Vancouver, as these individuals navigate multiple systems of care and supervision and the ongoing opioid overdose crisis.
- Abstract: The presentation addressed The presentation will address the following questions and topics: Why are young people often left out of drug policy? What does youth-centred drug policy look like? Are there examples of youth-centred policies, programs, and practices from Vancouver, Canada, and elsewhere?

The presenter gave an introduction to the *Youth Health Research Program* in British Colombia:

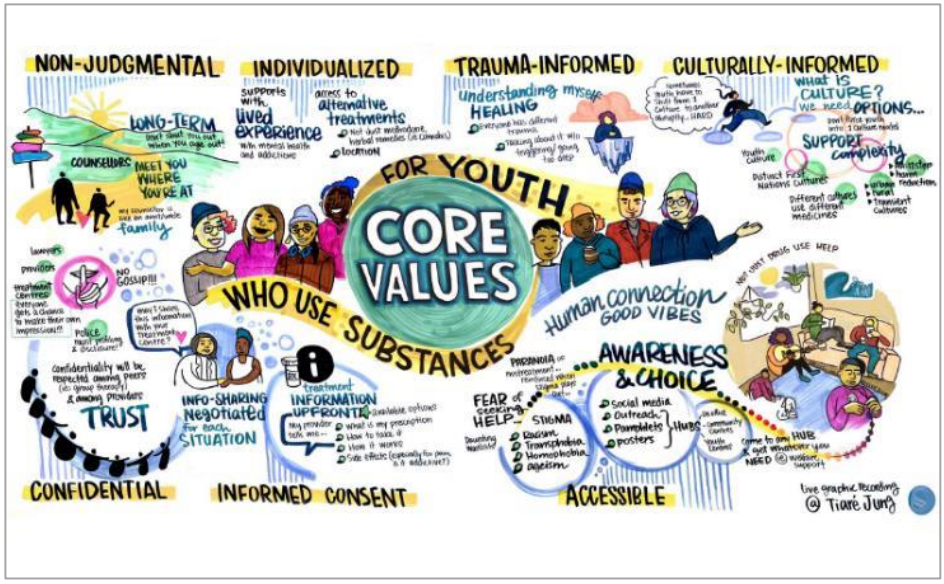
- Longitudinal qualitative and ethnographic research with hundreds of young people who use drugs (YPWUD) in Metro Vancouver and across British Columbia since late 2007

- Tracing substance use, treatment, and care trajectories among YPWUD as they navigate multiple systems of care and supervision and overlapping public health emergencies (overdose, COVID 19) and crises (

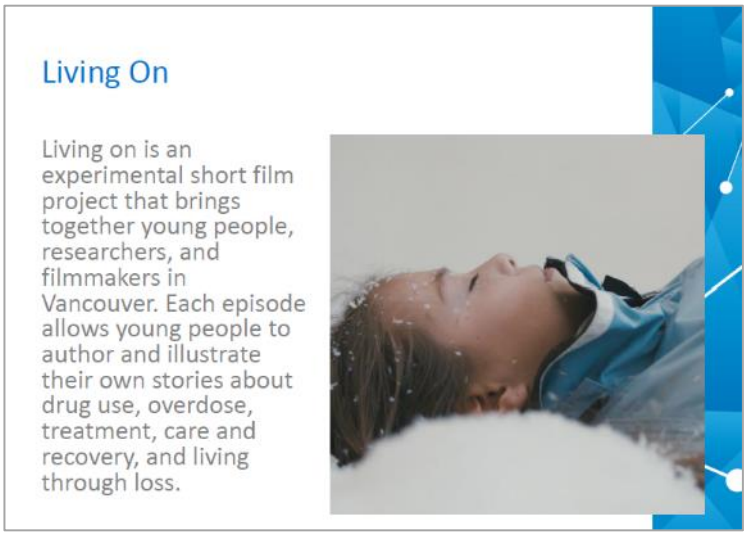
The speaker addressed the question: *What key principles should inform youth-centred drug policies, programs and practices?*

1. Center relationship building, self-determination, and safety
    - Overly medicalized models of substance use and mental health care can become a part of a continuum of institutional harms and signal danger to young people, leading to disconnections from care
2. Present pharmacotherapies as one piece of a whole
    - "They just pass you the pills"
    - Young people may avoid service settings where they perceive that pharmacotherapies such as opioid agonist therapies and psychotropic medications are the primary focus of care
3. Avoid approaches that privilege monitoring and surveillance
    - Young people are acutely aware of how their client files, patient charts, and other means of information sharing can impact their current and future interactions with services
    - Monitoring and surveillance can signal danger, leading to disengagement from care
4. Seek permission before sharing information about youth with other providers
    - Young people worry about who knows what and the consequences of knowledge being shared
    - Some youth attempt to manage what does or does not end up in their files, while others avoid care altogether
5. Focus on the present, not the past
    - "I am not my file"
6. Involve youth as partners in developing plans and timelines for opioid agonist therapies (OAT) and psychotropic medications
    - Many young people do not envision being on OAT or psychotropic medications over the long-term, desiring clear pathways to tapers
    - When they are not offered this pathway, many decide to "do it on their own," with oftentimes disastrous outcomes
7. Recognize that youth often prefer care and treatment modalities that give them more control and subject them to less surveillance
    - Cannabis can be a treatment and harm reduction strategy

Research has already identified key core values for YPWUD:



Finally, she presented a short film made in collaboration with YPWUD in Vancouver:



Perspectives of people who use drugs on drug policy

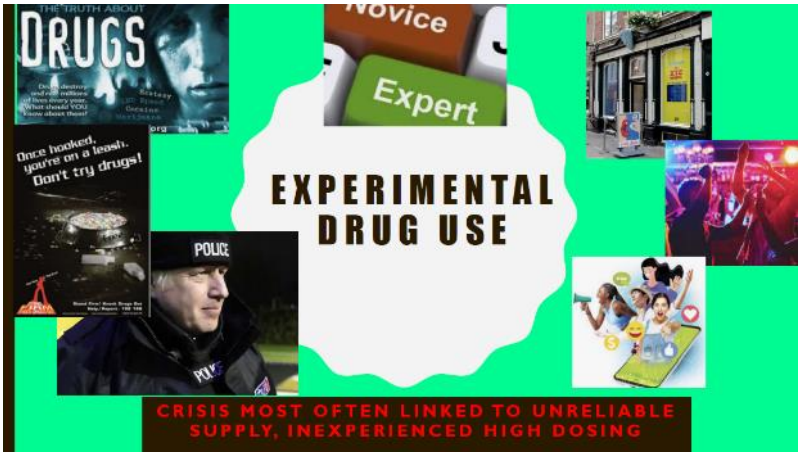
- Name: **Mat Southwell**
- Affiliation: Project Executive at European Network of People who Use Drugs.
- Short bio: Mat Southwell was one of the first generation of harm reduction workers to respond to HIV among people who inject drugs. Mat founded the Healthy Options Team (HOT) in 1991 and went onto to lead East London and City NHS Drugs Services. This included a dynamic partnership with local GPs in a pioneering shared care opioid agonist treatment (OAT) scheme that engaged some of the most marginalised people who use drugs in healthcare. Mat came out publicly as a drug user activist on a BBC TV documentary in 2001. Since this time, he has worked in the drug user rights movement from the local to the global. He is half-time Project Executive for the European Network of People who Use Drugs (*EuroNPUD*). He is Managing and Technical Director for *Coact Technical Support LTD* who deliver technical support about and with people who use drugs in humanitarian aid settings. Mat is a strong supporter and reluctant consumer of OAT.
- Abstract: The presentation will address the following questions and topics: How does drug policy influence the lives, livelihood, and help-seeking of people who use drugs? Elaboration with some case examples/case studies. Narrative personal experience.

The presenter gave a highly visual narrative account of the different types of drug use, the challenges that face the people that practice each and how drug policy might better serve their needs. Drug use continuum otr "career":

- Experimental
- Controlled
- Heavy
- Early Dependent
- Long term Dependent
- Cessation
- Recovery of Control

He highlighted the impact of drug policy on people who use drugs over "drug using career" and impact on health seeking behaviour.

Experimental drug use

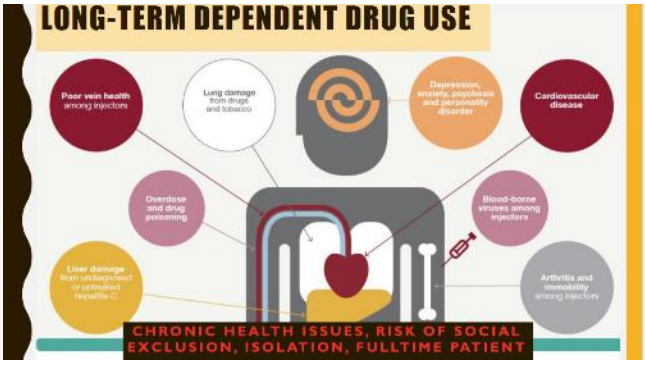


Controlled drug use

Heavy drug use

Early Dependent drug use

Long-term Dependent drug use


LONG-TERM DEPENDENT DRUG USE
Poor vein health among injectors
Lung damage from drugs and tobacco
Depression, anxiety, psychosis and personality disorder
Cardiovascular disease
Overdose and drug poisoning
Blood-borne viruses among injectors
Liver damage from undiagnosed or untreated hepatitis C
Arthritis and immobility among injectors
CHRONIC HEALTH ISSUES, RISK OF SOCIAL EXCLUSION, ISOLATION, FULLTIME PATIENT


Health Care
Health Advocates
LONG-TERM DEPENDENT DRUG USE
Social Reintegration
CHRONIC HEALTH ISSUES, RISK OF SOCIAL EXCLUSION, ISOLATION, FULLTIME PATIENT PRESSURE TO END MAINTENANCE

Cessation

Recovery of Control

He summarised the presentation with key messages on drug policy and control:

- Drug control is detrimental to the health and rights of people who use drugs across all stages of drug use.
- Drug control is a tool of social control and this undermines drug treatment and wider health and social care for people who use drugs .
- There is so much potential to engage people who use drugs in meaningful drug treatment and integrated healthcare.
- Decriminalisation is critical first step in removing the policy impediment of drug control.

WG4 Research paper

Brief description of the studied documents

Twenty documents from nine countries were reviewed; Botswana, Croatia, Egypt, India, The Netherlands, North Macedonia, Poland, Portugal and Spain. Two national-level drug policy/program/action plan documents were retrieved from the following countries: Croatia, Portugal and Spain. The highest number (n=5) of documents reviewed was from Poland. Three relevant drug policy documents were found from The Netherlands and one from North Macedonia. No drug policy-specific document was found for Botswana; however, a member of the research team reviewed the country's alcohol and health policies. Except for The

Netherlands, all countries mention women, pregnancy, and motherhood-related concerns in a common drug policy document or national strategies. Only the Netherlands has a specific document directed towards pregnant women, a factsheet produced by the Dutch Association for Obstetrics and Gynaecology, "Vulnerable pregnant women and protection of the unborn child" which is part of a series about (domestic) violence, abuse, neglect, exploitation and other types of harm that may be inflicted onto someone in a power-imbalanced relationship.[22]

Original publication of all these documents was in the last decade, except for "Counteracting drug addiction," a drug demand reduction policy report from Poland, published in 2005,[23] and the Dutch policy, published in 1995.[24] Five of the nine countries (Egypt, India, Croatia, Spain, and Poland) updated/ revised their drug policy in recent years.[25,26,27,28,29,30] North Macedonia brought out its latest drug policy in 2021.[31] Two countries (Portugal and Botswana) have not updated their policies in the last ten years.[32,33,34] In most countries (n=5), the Ministry of Health was responsible for publication of drug policy reports. However, different ministries in India, Poland, and Botswana have issued drug/alcohol policy documents, namely the Ministry of Social Justice and Empowerment, the Ministry of Finance/Trade, and the Ministry of Education. Spain has specific Ministerial regulation for drug policy measures and implementation, the Government Delegation for the National Drug Plan (*Plan Nacional Sobre Drogas*).[35]

All nine countries state the intention to use the state budget to implement drug programmes.

Content analysis

The research identified 19 unique codes from the content analysis. The recurrent and similar codes were combined to generate 10 major themes relating to women in general.

1. **Special concerns in women** - Mental health, shame, blame, stigma, gender role, and gender violence
2. **Needs assessment** - The drug policy documents we reviewed described the need to conduct surveys among women and at-risk populations, not only to understand the problem but also to design acceptable and effective strategies to address it.
3. **Prevention** - The prevention strategies discussed in the documents included both universal actions, such as raising awareness in the general population, and the need for selective and indicated prevention programs and interventions targeting women.
4. **Treatment** - Drug policy measures from various countries emphasize the role of gender-sensitive treatment.
5. **Social reintegration** - To help people with drug misuse to become contributing members of society following treatment, policy measures are needed to develop and promote interventions and strategies to address housing, education, vocational training and employment.
6. **Supply reduction strategies** - to disrupt the production and supply of illicit drugs. The relationship between women and the drug trade is complex. Women's participation in the drug supply chain can be attributed to vulnerability and oppression, where they are forced to be involved out of fear or exploitation, or do so by their own decision.
7. **Training** - the need for workforce training and capacity building in gender-responsive prevention and treatment.
8. **Collaboration and coordination** - inter-ministerial, inter-sectoral, and international collaborations to achieve the objectives of the policy documents.
9. **Monitoring and evaluation** - Periodic surveillance is required to inform policymakers of existing drug policies' effectiveness and limitations. A few of the countries´ policies mentioned the importance of gender-sensitive indicators for monitoring the implementation and outcome of the policy measures.

10. **Policy** – Overarching guiding principles adopted by a government to shape the strategies and action plans to address a particular issue can also exert a gender-sensitive influence, e.g., gender equality in the involvement in decision-making.

Summative quantitative analysis

For *women-specific* content analysis, special issues/concerns in women with drug misuse, need assessment, and prevention were the three most frequent themes; for the *children-specific policies*, prevention, training, and treatment comprised the three most occurring themes. For *pregnant women-sensitive* policy texts, prevention, treatment, and child custody were the highest occurring themes.

Thematic map

A thematic map was used to visualize the cross-connections between common and unique themes (specific to the target population) discovered during the content analysis. All policies/programmes identified aimed at preventing and treating substance use problems among women, pregnant women, and children; be that through universal, selective or indicated measures (or a combination of these). They emphasized the importance of needs assessment to understand the magnitude and patterns of the problem. However, some policies diverged in also including supply reduction and legislation to protect children and women (and the unborn children of pregnant women) as preventive measures. In another connecting issue, policies highlighted training and human resources capacity building to deliver gender-sensitive care. Specific psychosocial concerns for women with SUDs, such as the stigma, blame, gender-based violence, and typical gender-roles, also emerged as issues to be addressed in a gender-sensitive prevention and treatment programmes.

Adherence of the national policy/programs/strategies to the adapted checklist for gender-sensitive policy

According to the ratings of the countries' gender-sensitive policies, there is limited adherence to international guidelines and lessons learned on the items: 'gender equality and women's empowerment', and, in particular, 'engendering results chain' (which ensures outcome, output, and activities are in sync with the specific need in women and for pregnancy, and motherhood). Very little adherence was reported regarding the provision of gender-responsive indicators (adherence in 2/9 countries), and even less for adequate and sustainable financial resources to implement the components of the policy (1/9). The adherence is relatively better for the background situation and context analysis (6/9), consideration of differential impact and strategies (7/9), targeted approach to reach out to this special population (7/9), envisioning equality and women empowerment (agreement=7/9), improving access and participation in interventions (agreement=6/9), and monitoring and evaluation of the implementation of the policy measures (agreement=7/9). The 'adherence' includes those who at least "somewhat agreed" to the checklist items.

Conclusions:

The WG4 **conference session** covered different perspectives of drug policy tailored to specific groups' needs – women, youth and PWUD at different stages of their "drugs career".

Clear gender and sex differences in the burden of SUDs, progression of such disorders (consequences are more severe and rapid among women), barriers to treatment entry and recovery, and comorbidity indicate that policy and practice must be both broadened and tailored to cater for women who use alcohol and other drugs; including attention to misleading gendered marketing campaigns (from alcohol and tobacco industries). Upholding human rights is also a motivator for gender-sensitive policy, enshrined in UN charters and the SDGs.

Key principles to inform youth-centred drug policies could also be identified following from co-creation and consultation work with young people; including avoiding overly medicalised models and approaches relying on surveillance, including tapered treatment pathways, and enhancing the patient control of medical decisions and options.

People who use drugs cannot be considered a homogenous group, given that their needs and challenges differ greatly depending on the stage of drug use, or point at chich the individual is in any pathway into and out of problematic drug use, from initial experiments in drug use, possibly through dependency to recovery of control. There is a great deal of potential in engaging PWUD in design and planning of meaningful drug treatment and integrated healthcare; but decriminalisation of drug use is a critical first step in removing the policy impediment of drug control.

For the **research paper**, the working group reviewed 20 published documents from nine countries. The findings confirm that gender differences in drug use patterns, characteristics, and intervention needs represent an important policy issue addressed to various extents in different countries.[36] The common themes that emerged for women, pregnancy, and children were needs assessment, prevention, treatment, training, supply reduction, and collaboration and coordination. The focus on prevention can be seen as a continuum of drug demand reduction responses relevant for people with substance-use disorders and their families,[37] which most of the included countries recognized as relevant.

Custody of children was a unique and the most frequent theme for pregnant women. Child custody has a long-term effect on children throughout their adulthood; and loss of custody can have repercussions on children's development and produce additional expenses for society.[10]

Specific psycho-social concerns and social reintegration were special themes for women, whereas legislation, harm reduction, research, and resource allocation were children-specific additional themes. Women who use drugs have high rates of mental health problems and histories of childhood abuse, and greater vulnerability to drug-related harms.[38,39]

For women-specific content analysis, special issues/concerns in women with drug misuse, need assessment, and prevention were the three most frequent themes; Needs assessment was recognized as an important factor in providing adequate care. This aligns with research showing that combining integrated services based on the needs assessment can result in positive outcomes for individuals, families, and society.[9,37,40]

For the children-specific policies, prevention, training, and treatment comprised the three most occurring themes; and for pregnant women's sensitive policy texts, prevention, treatment, and child custody were the highest occurring themes. According to ratings of the country's gender-sensitive policy, there is limited adherence to the synergies with the best practices and engendering results chain, to ensure activities are in sync with specific needs, as recommended by international UN guidelines on gender-sensitive policy.

The working group analysis is expected help policymakers update and adapt national policies to give them a gender-responsive structure.

Key messages

- People who use drugs cannot be considered a homogenous group, and policy designed to relieve suffering and advance towards sustainable population goals need to account for different sub-groups and characteristics, such as:

    - Different genders / women and women in different life stages, roles or contexts (e.g., pregnancy, mothers, detained women)
    - Different age groups / young people who use drugs
    - People who use drugs in different ways – from experimental to dependent and recovery
- Co-creation, consultation and co-action are vital, but hampered by drug control policies and criminalisation of use.
- There is much variation in the level of attention paid to gender-sensitivity in national drug policies, including the degree to which they adhere to international guidance and checklists.
- Gender-relevant drug policy often takes a preventive approach (with or without supply reduction as part of this), with child custody legislation and provision of care for comorbid mental health and psychosocial problems being issues of high importance to tackle.
- Document analysis, involving professionals from diverse academic and research backgrounds and expertise, from diverse cultures and different continents, can produce insight to help policymakers update and adapt national policies to be more gender-responsive and enhance effectiveness.

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THEME 5: Impact of the global public health crisis

Background: Overview and aim of the group

The COVID-19 pandemic and related restrictions have had an impact on the delivery of healthcare in general. Among people who use drugs (PWUD) these restrictions have created barriers to accessing prevention, harm reduction and treatment services. It has also disrupted the global movement of drugs, forcing changes to supply and distribution. Initial themes of this topic included how different services and interventions (e.g., screening, harm reduction, treatment) have adapted from traditional face-to-face models in response to the changes brought about by the pandemic; how the movement of drugs has changed (e.g., cross-border movement); the mental health impact of the pandemic on drug users; and post-pandemic changes (to care and/or to drug use).

The aim of the group was to prepare a briefing paper based on original research in the defined area around the theme of the impact of COVID-19 on addictions; to be expanded into a journal article for submission to an open-source journal.

At the request of the LX22 conference organisers, a separate session on the this theme was not prepared for the conference; but, through the working group collaborative process, and drawing on the insights provided in the LX22 programme, the final topic defined for research and the article was the poly-crisis of trends interacting with the fallout of the COVID-19 pandemic, and the group designed and deployed a questionnaire to explore this area, drawing out insightful case-studies for detailed explanation.

Introduction to the topic

In early 2020, professionals and managers of addiction treatment services in different countries had to adapt quickly to accommodate the challenges of COVID-19 infection control whilst ensuring continuity of care for the people using their services.[1] At the start of the pandemic period, these alcohol and drug treatment services were already working in the challenging context of pre-existing overlapping crises of increasing poverty, homelessness, gentrification, budget cuts, and increasing drug- and alcohol-related mortality; and these determinants of outcomes also underwent changes, alongside COVID-19. The researchers of the working group call this constellation of adverse situations the *'poly-crisis'*. Services were required to adapt their practice to ensure continuity of care whilst following social distancing and infection control requirements.[2,3] While these swift changes were challenging for those involved, the COVID-19 pandemic also opened a 'policy window of opportunity' to trial and evaluate new interventions or modes of service delivery, or to make drastic changes to practice that had been previously not considered, or were unpopular, but now represented a unique way round stubborn problems.[3,4]

Methodology: Process to develop the briefing document

The working group consisted of 13 active members (Female: 12, Male: 1, Other: 0) from 13 different countries, representing academic, civil society, policy and clinical profile organisations.

The specific theme (SUDs and COVID-19: Reflections on international research and practice changes during the poly-crisis) and working process of the group was decided in consultation with all active members through iterative online meetings prior to and after the conference, and consolidated through an in-person meeting at the Lisbon Addictions Conference site.

In Autumn 2022, WG4 designed and set up a short online survey[‡] to gather information and opinion on the impact of the poly-crisis in different parts of the world. This survey was disseminated to the network of multi-sector professionals involved in all the 5 working groups (75 WG members from 37 countries), and to those who presented on COVID-19-related work at the Lisbon Addictions Conference. Informants were asked to provide details of changes to research, policy and practice in their country during the pandemic

The working group researchers used the information provided through the survey, complemented by their own clinical and research experiences and peer-reviewed academic literature, to identify, cluster and define key illustrative examples of changes to practice and research across the field and in different countries brought about by the poly-crisis. These examples have ongoing implications for care, service delivery, policy and future work; and are presented as three case studies, focusing on telehealth, medication treatment for opioid use disorder, and alcohol harm reduction. The case studies represent creative and novel responses to the crisis, and also lead to reflections on the impact of the pandemic on addictions research.

Results, Conclusions and Key message on Theme 5

Responses to the survey

Informants (n=20) were from a range of countries in different parts of the world: Belgium (n=1), Canada (n=1), Egypt (n=1), Germany (n=1), Greece (n=5), Ireland (n=1), Italy (n=1), Jordan (n=1), Netherlands (n=2), Nigeria (n=2), Poland (n=2), Republic of North Macedonia (n=1), and United Kingdom (n=1). The multi-sectoral respondents came from a range of professionals backgrounds, broadly grouped as: clinicians/practitioners (n=7), public administration/policymakers (n=1) or researchers (n=11). Most had worked in the addictions field for 1-5 years.

The synthesis of the information provided in the survey with the WG4 researchers' clinical and research knowledge, complemented by peer-reviewed academic literature, resulted in key examples of poly-crisis-related changes with ongoing implications for care, service delivery, policy and future work. These are presented as three case studies below.

Case study 1: Telehealth as a response to COVID-19

Telehealth took on a new meaning during the COVID-19 pandemic period, offering an opportunity to reduce disruptions to substance use disorder treatment services. Various forms of telehealth have long been available in healthcare systems across the globe. However, services for people experiencing SUDs, interacting as they usually do with the regulation of criminalised behaviour, tend to be more rigid and less adaptable than those for other health problems. COVID-19 brought through necessity a new regulatory environment which allowed changes to the system: In Ireland, prescribers proceeded to integrate telehealth options in order to streamline access to medications for opioid use disorder; [5] and in the United States, prescribers were able to start people on buprenorphine for opioid dependence without an in-person appointment.[6] An informant from Poland pointed out that the integration of telehealth in health systems may be more difficult in some European countries than others due to variations in patient readiness to receive telehealth across the region.[7] This was the case in Greece, according to one informant, who reported that many providers of SUD treatment, while using phone calls to reach service users, did not recognize the newer possibilities for online telehealth which became widespread during COVID-19. A service in Greece which provided online

[‡] For a full account of this work, please see: Carver H, Ciolompea T, Conway A, Kilian C, McDonald R, Meksi A & Wojnar M (2023) Substance use disorders and COVID-19: reflections on international research and practice changes during the "poly-crisis". Front. Public Health 11:1201967. doi: 10.3389/fpubh.2023.1201967

therapeutic sessions for drug use reported that 45% of respondents found the service helpful, although indicating areas for improvement.[8]

In Nigeria, *DrugHelpNet*,[9] a network which disseminates phone numbers for frontline substance use clinicians, was highlighted as the service with the greatest impact during COVID-19.

Implications for data protection for individuals whose behaviours are highly stigmatized and criminalized was also highlighted by a second Greek informant, who was concerned about providers continuing to use unencrypted instant messaging applications in services.

Another risk of the rapid roll-out of telehealth is that it is likely to perpetuate health inequities lying on either side of the digital divide: such systems may not be responsive to the needs of people who are linguistically diverse, unhoused, have little or no access to digital technology, or have multiple comorbidities, among others. By building around strategies which address the needs of these groups, telehealth implementation could contribute to improving equity in health outcomes.

Since the onset of COVID-19, the integration of telehealth into services has gone from incremental to cascading. To safeguard health equity, future iterations of telehealth which serve people experiencing substance use disorders need to provide low-threshold access to care, while ensuring the security and confidentiality of those using the services.

Case study 2: Changes in the provision of medications for opioid use disorder

For patients receiving daily medication to treat opioid use disorder (e.g., buprenorphine, methadone), treatment guidelines during the COVID-19 pandemic were relaxed in several countries to reduce infection risk from in-person visits at treatment sites, by allowing for longer take-home dosing intervals up to 14 days of medication.[10,11] In other countries (e.g., Canada, Norway), it was made possible to deliver medication to patients' fixed or temporary abodes (e.g., shelter, COVID-19 isolation units), particularly in cases where patients had an active COVID-19 infection.[12] As a result of these adjustments to dispensing, the supervised dosing requirements and saliva or urine drug screens were also decreased.

These changes to guidelines aimed to maximize available resources to prioritize maintaining treatment provision to existing and new patients, including rapid treatment induction, as mentioned by an informant from Ireland. In parallel, some of the usual safety measures were scaled down (i.e., supervised dosing, drug screens). While these changes were welcomed by service user advocates, some raised concerns around safety implications for the patients themselves as well as the wider community,[13] pointing out that unsupervised dosing can increase the risk of overdose,[14,15] and is also associated with diversion of OAT to the black market.

However, treatment providers in Norway observed that more flexible provision of take-home doses during COVID-19 led to time-savings, reduced treatment burden, and improved quality of life among patients.[12] As an informant from North Macedonia noted, flexible medication provision also favoured retention in treatment. In Australia, North America, and several European countries, prescribing extended-release formulation (i.e., weekly, or monthly dosing) as an alternative to daily dosing of depot buprenorphine subcutaneous injections was also scaled up, with increased convenience for patients.[16] In parallel, many countries embraced the use of telehealth.

The long-term impacts of the COVID-19 pandemic and changes to healthcare provision on morbidity and mortality among people who use opioids are still being studied, and are likely to vary from country to country. In the early stages of the pandemic, at least 25 countries reported shortages in supplies of methadone and buprenorphine.[17] Additionally, due to social distancing requirements, harm reduction services, including

overdose prevention programs (including take-home-naloxone provision), needle and syringe programs, and outreach services were discontinued in at least 30 countries.[17]

In Canada, people who use illicit opioids experienced disruptions in drug supply during the pandemic, bringing about greater use of adulterated substances (including fentanyl) and putting them at higher risk of overdose.[18] In response to this adverse trend, guidelines in the province of British Columbia were amended to allow for safer supply interventions (e.g., prescribing of hydromorphone, psychostimulants).[19,20] In the US, a record high number of opioid deaths was reported for 2020,[21] and has been linked to pandemic-related increases in patients' social isolation, stress levels, and polysubstance use, as well as the changes to opioid treatment provision.[22] In England, deaths related to methadone (but not buprenorphine) increased by 64% in the first wave of the COVID-19 pandemic (March-June 2020).[23] However, this increase in mortality occurred not in methadone patients themselves but individuals outside of treatment, raising the question of potential diversion.

Case study 3: Changes to alcohol harm reduction approaches

National governments varied enormously in the alcohol control measures adopted or changed during the pandemic, ranging from a relaxation of policies (such as permitting home deliveries of alcoholic beverages – a measure called for in Iceland), to restrictions of selling hours and temporary total bans of alcohol sales.[24] Such total bans on alcohol were seen in two countries as a consequence of national pandemic lockdowns in Spring 2020: In India, a strict lockdown between 25th March and 3rd May 2020 resulted in a temporary ban on alcohol sales during this period;[25,26] and in South Africa, alcohol was declared a non-essential good and therefore banned during lockdown.[27,28] In other countries, however, alcohol was declared an essential good, leading to it being widely available during lockdown periods (see Neufeld et al. (2020)[29] for an overview). Informants noted a number of changes in their countries: In Germany, cheaper alcohol was available, and sales were perceived as having increased in Greece. Research has highlighted that alcohol consumption reportedly increased among those who drank heavily before the pandemic and among those experiencing alcohol use disorders and dependence,[30,31,32,33,34] which in turn highlights the urgency of additional support resources and treatment for alcohol use disorders (AUD). While the treatment norm globally for AUD is abstinence-based treatments, the pandemic provided opportunities and motivation to scale up alcohol harm reduction approaches such as managed moderation.[35] This was particularly important when rehabilitation and detoxification services were closed completely or had reduced access.[35,36] Harm reduction approaches introduced for those experiencing alcohol use disorders included access to medications to manage withdrawal;[37] guidance for healthcare providers;[37] safer drinking advice;[38] and the increased provision of Managed Alcohol Programmes.[39,40,41,42]

The documented changes in alcohol consumption during the COVID-19 pandemic, even if temporary, will result in a significantly increased burden on health and public economic resources; and if drinking patterns do not revert to pre-COVID levels, the disease burden will be even higher.[43] Such adverse consequences of alcohol harm and costs to society could be averted with careful foresight and COVID-19 recovery planning. Evidence already exists on the health benefits and cost-effectiveness of various alcohol control policies, which can complement other ongoing policy agendas. Intelligent and nuanced alcohol policy, acting at the population level, are low cost, can offer good returns on investment, or can generate revenue, contributing to the health, social and economic recovery from the pandemic.

Research changes

Research, including in the field of addictions, was impacted during the COVID-19 pandemic.[44] Collaboration with community and peer-led organisations in the design and implementation of research were pushed to

the forefront, not only to improve the studies and their impact, but also to improve the studies' resilience in the face of challenging conditions and implications for *preparedness*. One informant from the Netherlands found that remote working encouraged new and sustained collaboration between practitioners and researchers due to the ease of online meetings. Initiatives such as the SU x COVID Data Collaborative were agile responses to the pandemic, bringing together scientists and community health practitioners to facilitate data collection internationally.[45] Limitations on in situ research also necessitated novel approaches, including online data collection, as well as a more extensive exploration and use of secondary and big data.

With the increased focus on community and individual behaviour, open science and citizen science (science conducted with participation from the public) have become mainstays of healthcare research, and one informant from Ireland highlighted the usefulness of citizen science for research on SUDs and services. These research methods offer the possibility of "engaged citizenship",[46] although there remain important questions about the extent to which this can be realized without community-driven research or co-creation of research projects. The COVID-19 pandemic drew attention to both the strengths, and also the limitations of community-based participatory research, particularly highlighting power imbalances and inherent structural issues that can sideline or inhibit community involvement. Community-driven research offered possibilities for putting the needs of the community at the centre,[47] making the research more responsive to the researched population, especially in times of crisis.

Given the pandemic definition as a global emergency, and the positioning of health as a political priority, new funding opportunities were rapidly put in place to facilitate timely research, and an informant from Canada noted the continued need for creative approaches to pitching ideas for addictions research, as was seen in the response for the COVID-19 funding calls. A Nigerian informant highlighted: "During [the] COVID-19 pandemic, government agencies and major stakeholders became more proactive, intervention programs provided new insights on how best to handle addictions in emergency situations coupled with evidence based, result oriented approaches both in policy, practice and research". Similar developments in new research, funding and collaboration opportunities emerged in other countries, including those where long-standing and extensive addiction research funding is barely available, such as Albania or Jordan. Some research areas, however, were negatively affected by the pandemic, including field and clinical research, which were often not possible due to COVID-19 safety measures.[44]

Conclusions:

The COVID-19 pandemic period exacerbated pre-existing health inequalities, and stretched the capacities of research, practice and policy in the area of addictions and substance use disorders; yet the changes of this time also stimulated innovation and offered opportunities for the future, particularly regarding collaboration and community engagement. These developments could, if handled carefully, use the recovery period to address the poly-crisis around substance use, poverty, stigma and health inequity.

Building on examples of good practice research methods established during the pandemic, familiarisation with new digital tools, as well as setting compensation for participation, allows for the involvement of people who might otherwise be excluded, as well as enabling international research collaborations. To capitalise on this, the work of community-based organisations in research over the years since the start of the pandemic needs to be recognized, and thought dedicated to creating sustainable structures promoting collaboration between community, practice, and academia.

The treatment systems which proved to be most resilient during the pandemic were those with sufficient resources to embrace innovations in drug development (such as depot buprenorphine) and new technologies (digital telehealth and training) and meet the needs of people experiencing substance use disorders by

tailoring treatment and harm reduction services to their current living situations. It is important to note that many innovations within the sector have come from high income countries, so it is likely that additional funding for innovations and further research will be required to understand the impact within low/middle income countries.

The COVID-19 pandemic was one crisis, which had considerable impact on the addictions field. However, there are lessons to be learned to ensure drug and alcohol services and related research is sustainable globally, in ongoing and future crises, such as climate change and the war in Ukraine.[48,49]

Key messages

The COVID-19 pandemic flagged the culmination of several health crises, resulting in a major poly-crisis challenging addiction practice, policy and societal stability. Now, three years after the onset of the pandemic, we have witnessed various transformations in the addiction field, including many positive ones, from which we can and should learn from for the future, to be prepared for ongoing and emerging crisis.

From the WG4 research and experience, the following implications for policy, practice, and research can be made:

- **New telehealth services** offer possibilities of providing more flexible care, but attention must be paid to **data system security and protection of confidential client information**;
- Scale-up of telehealth risks excluding people who are linguistically diverse, unhoused or in unstable housing situations, who have little or no access to new technology, or have multiple comorbidities. Implementation strategies need to prioritize and aim to **ensure health equity across the digital divide**.
- The pandemic period saw a **scale-up of prescribed safer supply initiatives** to continue delivering these life-saving medications. This "policy window" should be kept open, where possible, in countries where safe supply is not already available;
- **Flexibility in the provision of medication for opioid use disorder**, brought in during lockdown conditions or period of restricted services, should be sustained to allow services to better respond to the needs of their clients;
- The pandemic period demonstrated the possibilities for **integrating harm reduction approaches into treatments for alcohol use disorders**. These experiences should be built upon to inform scale-up;
- Given the polarising impact of the pandemic on population alcohol consumption, and the dangerous reframing of alcohol as an essential good in some countries, **alcohol control policies** around the world need to be strengthened in order to avoid a looming AUD treatment crisis and exacerbation of health inequalities related to alcohol harm.
- The limits on drug and alcohol research during the COVID-19 pandemic also provoked creative and international collaborations. **Sustainable citizen-led and community-centred research** should build around the voice of people experiencing substance use disorders;
- The pandemic period saw the fast-track roll-out of novel approaches in drug and alcohol services, often based on imperfect knowledge or "evidence enough". Research and funding bodies must consider how they can **support changing and emerging knowledge, particularly in low- and middle-income countries**, where such innovations may be limited due to a lack of funding.

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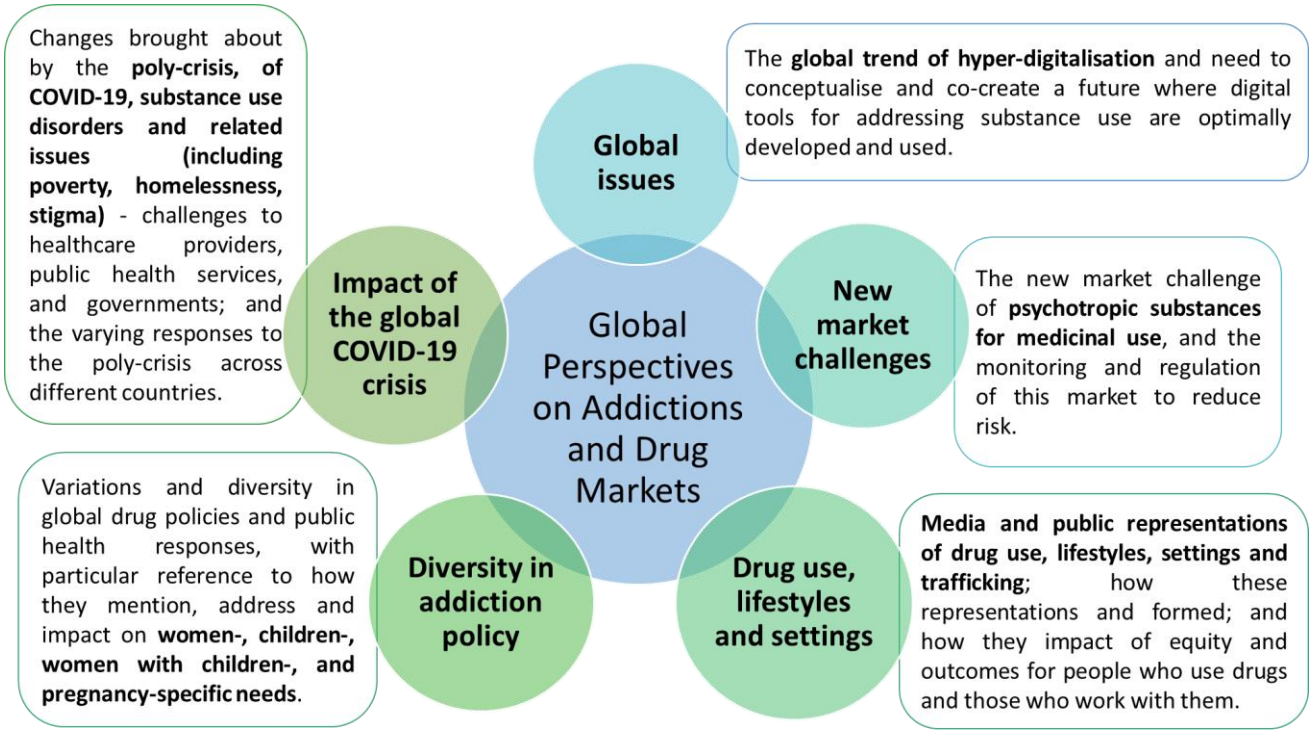
DISCUSSION AND OVERARCHING CONCLUSIONS

Between May 2022 – June 2023, the Inter·GLAM project created and supported 5 global topical working groups, comprising multi-sectoral professionals from around the world, representing organisations in Europe, Latin America and the Caribbean, Africa, and Asia; to participate in multiple, regular, online meetings to identify through consensus the main issues and key research questions, contribute technical insight to Lisbon Addictions 2022, and to plan and develop research action and briefing texts in the five themes in the areas of drug trafficking, use, addiction and health responses.

The work developed in 5 research areas identified by the Inter·GLAM working groups each represents a specific knowledge gap that was addressed:



Several cross-cutting themes emerge from the co-creation and synthesis of these 5 briefing reports, which can be summarised in eight overarching conclusions:

1. **Stakeholder diversity**: There is great value in bringing together a diverse range of stakeholders, from different sectors, career stages and geographical backgrounds, to exchange perspectives and investigate a specific research question – the richness of the contexts and approaches adds depth to the investigations.
2. **COVID-19**: The pandemic brought about unprecedented challenges and also opportunities – accelerating digitalisation, creating global representations, interacting with other ongoing crises impacting on substance use, markets and addictions.
3. **Ethical frameworks led by PWUD**: There is a significant need to develop ethical frameworks to govern the use of various technologies, and the representations and information they relay, ranging from social media to artificial intelligence. These can only be developed by groups including people who use drugs and addiction services.
4. **Industry involvement and commercial determinants of health**: There are numerous commercial interests in addiction and a number of industries to consider – tech, media, and addictive products, such as alcohol.

"Shared value" investments and collaborations between industry and public health remain contentious issues.

5. **Responsible communication**: There is a need for caution in reporting on a number of areas relating to drug use and markets – from outcomes and risks in use of psychoactive substances for medical purposes, to the fictional representations of people who use and sell drugs, to factual reporting on the contexts of drug markets in mainstream media, and accurate harm reduction advice on social media. Reporting and communication guidelines with highly practical examples can help in this regard.

6. **SUD treatments**: Unmet treatment needs are high for substance use disorders (SUDs), and (co-morbid) psychiatric disorders, and outcomes are variable. Inter·GLAM explored different areas relating to research and clinical practice of treating SUDs:
    a. Psychedelic-assisted Psychotherapies (PAP) for psychiatric disorders, including SUDs, including classic psychedelics (Psilocybin and Ayahuasca), dissociatives (ketamine and ibogaine) and entactogens (MDMA). Continued research is warranted.
    b. Critical thought and initiatives to address past gender biases in biomedical treatments can improve relevance and outcomes for roughly half the world's population (women).
    c. Co-creation of services with young people who use drugs, and experts by experience can tailor treatment options and pathways to specific groups' needs, for improved compliance and convenience of the target groups.
    d. Flexibility, as evidenced by new treatment delivery and initiation approaches adopted during the pandemic, is key to facilitating uptake and maintenance of life-saving medical care.

7. **Stigma**: intersecting stigma and discrimination impact on health outcomes, exacerbating gendered and social health inequalities, reducing treatment compliance and confounding the health gains and outcomes of well-meant policy and practice. Initiatives exist to improve representations and reduce discrimination:
    a. In mainstream media – guidelines and co-creation initiatives to improve press activity and reporting
    b. In social media - advocacy for the digital rights of harm-reduction content creators to represent drug use accurately can improve the educational value and uptake of such information
    c. In society – Lived Experience Recovery Organisation show the value of those with lived experience as assets to promote recovery and societal cohesion.
    d. Policy – As well as increasing compliance with gender-sensitive policy guidelines, ultimately, decriminalisation of drug use and adoption of a health promotion approach in legislation will shift representations and reduce stigma

8. **Geographical diversity**: Is a double-edged sword:
    a. Involving professionals from diverse academic and research backgrounds and expertise, from diverse cultures and different continents, to compare policy documents, pilot interventions or develop other material aimed at regulation, can produce insight to help policymakers update and adapt national policies and practices for greater effectiveness.
    b. However, most interventions and plans are first 'tested' in high-income countries - Research and funding bodies must consider how they can support changing and emerging knowledge, particularly in low- and middle-income countries, where such innovations may be limited due to a lack of funding.