



# The ambiguity of psychedelics use among Iraqi medical students

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### ABSTRACT

This editorial emphasizes the significance of researching the awareness and usage of psychedelics among Iraqi medical students. Psychedelics, potent psychoactive substances acting on specific brain receptors, can profoundly affect consciousness and are worthy of investigation among this population. The aftermath of the fall of Iraq's political regime in 2003 and Iraq's dynamic social landscape could have influenced psychedelic usage trends. The dearth of data on psychedelics awareness and prevalence of use among Iraqi medical students highlights the need for dedicated research, particularly in the Middle East's persistently evolving scene and cultural dynamics. Insights from Europe's research on substance use patterns underscore the influence of cultural and temporal factors.

The misuse of psychedelics can strain healthcare systems, compromise public safety, disrupt families and education, and challenge social cohesion. It also poses economic implications due to decreased productivity of individuals and increased healthcare demand. Addressing these issues necessitates costly measures, including education and mental health support. Given the scarcity of studies on psychedelic use among Iraqi students, especially medical students, robust epidemiological studies are crucial. At the same time, interdisciplinary efforts and validated survey tools can provide reliable data. In conclusion, psychedelic research is imperative to inform targeted interventions and campaigns that prevent psychedelic abuse and safeguard the well-being of Iraq's future medical professionals and society in the long term.

**Key words:** Addiction, drug misuse, ESPAD 2019, psychedelic and hallucinogenic substances, substance use disorders, Middle east, Iraq.

### What are psychedelics?

Psychedelics (such as dimethyltryptamine, lysergic acid diethylamide, psilocybin, and ayahuasca) are a class of psychoactive substances principally acting on the 5-hydroxytryptamine 2 A (5-HT<sub>2A</sub>) receptors in the brain, induce significant alterations in consciousness, manifesting as perceptual, cognitive, emotional, and mood shifts, often accompanied by mystical or entheogenic experiences.<sup>[1]</sup> Iraq's unique cultural, political, and social dynamics warrant a thorough investigation into the prevalence of psychedelic awareness and usage among its

medical student population, which could have increased in post-conflict Iraq following 2003 (Figure 1).

### Could Iraq be a potential venue for psychedelic use?

Several factors influence Iraq's potential suitability for psychedelic use. A weak criminal justice system and lax law enforcement may facilitate the production and distribution of psychedelics. The proximity to neighbouring countries burdened with drug trafficking issues provides opportunities for the transit and trade of such substances.<sup>[2]</sup> Prolonged political insta-

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- Misuse of psychedelics strains healthcare systems, compromises public safety, and disrupts families and education.
- Iraq lacks accurate data about the prevalence and misuse of psychedelics and community awareness.
- Medical students have a crucial role in the distribution and prevention of misuse of psychedelics.
- Iraq and nearby countries have a favourable environment to produce and distribute psychedelics.
- The global prevalence of hallucinogenic drug use among adults is approximately 0.3%.

bility over the past two decades has created an environment where alternative economies, including the illicit drug trade, can thrive. The presence of organized crime and paramilitary groups further adds to the potential for drug trafficking.<sup>[3]</sup> The collective stress and mental burden endured by the Iraqi community due to regional wars and civil conflicts may drive individuals to seek unconventional coping mechanisms, including psychedelics.<sup>[4]</sup> Additionally, the inadequacy of the healthcare system, particularly in mental health services, may contribute to a higher prevalence of psychedelic use as people turn to self-medication. It is crucial to address these underlying issues to mitigate the conditions that may lead to the potential use of psychedelics in Iraq.

### Distinguishing psychedelics from psychostimulants

Psychedelic use among Iraqis could also have potential economic impacts.<sup>[5]</sup> Although the use of psychedelics is generally different from psychostimulant substances like crystal methamphetamine, both can affect productivity and financial (economic) stability. Prolonged or frequent use of psychedelics might lead to decreased work performance, absenteeism, and impaired decision-making skills. Moreover, if the use becomes widespread, healthcare systems could face increased demand for treatment of potential mental health issues. To mitigate these economic impacts, education campaigns, mental health resources, and workplace support programs could play crucial roles in promoting responsible and informed use of substances. One of the obstacles against this mitigation is the scarcity of studies measuring the awareness and prevalence of psychedelic substance use in the Iraqi community, including medical students.

The Middle East, including Iraq, has been experiencing political instability and cultural changes, which ultimately influenced the whole drug trafficking scene and illicit drug usage phenomenon.<sup>[6]</sup> The "Arab Spring" movement has rippled the Middle East's social fabric and cultural dynamics. Given these transformations, understanding the awareness and usage of psychedelics among the medical student population becomes essential for public health and regulatory authorities. Research in Europe has revealed intriguing patterns of seasonal interest in psychedelics, while specific trends have been correlated with the seasonal har-



Figure 1 | Imaginary concept art of magic mushrooms in post-conflict Iraq. Figure 1 was generated using Microsoft Bing Image Creator, a generative artificial intelligence (GenAI) software, leveraging an advanced iteration of OpenAI's DALL'E model.

vesting of psilocybin-containing (magic) mushrooms.<sup>[7-9]</sup> The former patterns may not directly translate to Iraq. However, they underscore the influence of cultural and temporal factors on substance use behaviours. Such insights can inform the development of targeted interventions and educational campaigns to promote responsible psychedelic usage when applicable while also mitigating potential risks.

In contrast to the wealth of substance misuse research in developed countries, particularly in Europe, studies focusing on psychoactive substance use behaviours among Iraqi students, including students of medicine, are scarce. The unique psychological pressure and stress medical students encounter during their studies, combined with Iraq's history of social-cultural instability and political turmoil, make understanding their substance use behaviours critical for mental health professionals and policymakers.<sup>[3,4]</sup> By conducting comprehensive research, we can identify factors contributing to psychedelic use and relevant risky behaviours, which can help develop tailored interventions to promote healthier choices and well-being.

### Why is it crucial to explore psychedelic use among Iraqi medical students?

Studying psychedelics among medical students in the Middle East, including Iraq, is crucial for several reasons. Firstly, it provides insight into how these substances interact with the region's rich cultural and religious history, influencing belief systems and commitment to these beliefs. Secondly, integrating psychedelic information into medical education prepares future healthcare professionals for evidence-based discussions with patients, fostering a comprehensive understanding of mental health treatments. Thirdly, such studies contribute to global research collaboration, enriching psychedelic perspectives. Fourthly, the engagement of medical students in this research fosters a global perspective, adding diversity to the knowledge pool. Additionally, it reduces the stigma associated with these substances and informs future policy and regulation decisions, considering cultural, religious, and legal factors. Lastly, exploring the potential

therapeutic applications of psychedelics is crucial, given their promising role in treating mental health conditions.

### Global and regional demographic data

The utilization of hallucinogenic drugs and psychedelics varies significantly across different countries and regions. The World Drug Report 2021 indicates that the global prevalence of hallucinogenic drug use among adults aged 15-64 stands at approximately 0.3%. In the Middle East and North Africa, the prevalence of psychedelic use appears to be relatively lower, hovering around (<0.1%).<sup>[10]</sup> However, precise and current data are imperative to understand this phenomenon in Iraq comprehensively. As the issue of drug use continues to escalate, policymakers, public health authorities, and researchers must collect more extensive data to grasp the scope of hallucinogenic drug use in Iraq and the broader Middle East. Armed with such data, regulatory authorities, including the Iraqi Ministry of Health, can make informed decisions to promote public health and enhance societal well-being.

On a different note, using various psychoactive substances, including amphetamine-type substances (ATS), particularly crystal methamphetamine (commonly known as crystal meth), is a well-documented issue within the Iraqi population, with students being no exception. The prevalence of amphetamine use is most pronounced among adolescents and young adult males aged 18 to 25 years, cutting across various socio-economic backgrounds.<sup>[11]</sup> In recent times, Iraq has witnessed a staggering increase in the abuse of methamphetamine, though the precise magnitude of this exponential surge remains to be accurately quantified. Methamphetamine and other ATS are emerging as the fastest-growing abuse substances worldwide, particularly in nations with lax legal and regulatory frameworks, such as Iraq.<sup>[11]</sup> To effectively monitor the issue of psychedelic and psychoactive substance abuse among Iraqi medical students, it is prudent to engage in collaborative efforts that draw upon reliable projects such as the European School Survey Project on Alcohol and Other Drugs, also known as the ESPAD project.<sup>[12]</sup> These initiatives provide invaluable

resources for conducting rigorous assessments of substance usage patterns. Doing so ensures methodological precision and facilitates meaningful comparisons.

Two pertinent studies conducted in 2017 and 2020 delved into substance use, encompassing psychoactive substances and painkillers (some with psychoactive properties), among Iraqi medical students.<sup>[13,14]</sup> The 2017 study concluded that, although these students demonstrated a certain level of awareness of psychoactive substances, determining actual usage was challenging due to the limited sample size (n=65) and potential biases, including recall bias. The identified psychoactive substances used included diazepam (50.3%), opium and opioids (20.4%), alprazolam (14.6%), cannabis and hashish (10.8%), amphetamines (8.9%), crystal methamphetamine (8.3%), desomorphine (7.6%), and Khat (4.5%). Notably, Iraqi students were unable to identify psychedelic chemicals. Knowledge concerning psychoactive substances showed negligible variation as students progressed from junior to senior years of their studies.<sup>[13]</sup>

In 2020, another study investigated the "The prevalence of self-medication with painkillers among Iraqi medical students".<sup>[14]</sup> The researchers conducted a cross-sectional study involving 502 medical students from various colleges in Baghdad. The prevalence of painkiller usage was 68.73%, with 73% being females and 27% males. A statistically significant association between analgesic use and gender was observed, but not with students' academic levels (junior versus senior). Analgesic use per month varied, with the majority (34.5%) using them less than once, 37.1% using them 1-3 times, and 14.2% using them 4-6 times. Headache was the most common reason (71%), followed by dysmenorrhea (36%). Most respondents (68%) reported no difference in usage between regular college and exam days. Friends were the primary source of information (50.1%), followed by family members, pharmacists, textbooks, the internet, and nurses.

### The multifaceted impact of psychedelic use

Psychedelic misuse can disturb various

aspects of life. It could strain the healthcare system due to increased medical and mental health service demands. Public safety can be compromised as risky behaviours (leading to accidents, homicide, and (para)suicide become prevalent). Family ties would suffer, education could be hindered, and societal cohesion could be threatened.<sup>[3,4,15]</sup> It could also strain the criminal justice system, clash with cultural or religious values, impact workplace dynamics, and divert government resources away from other essential needs. Further, addressing these disruptions requires a costly approach incorporating education of patients and the public, mental health support, public health policy measures, and community engagement.

The introduction and potential widespread use of psychedelics, including among Iraqis, present prospective economic challenges. The illicit nature of these substances could strain legal frameworks, increasing law enforcement costs. Workforce productivity may decline due to impaired cognitive function and decision-making among users, impacting overall economic efficiency. The potential rise in substance abuse-related issues could strain healthcare systems, redirecting resources from more critical medical needs. Social ramifications, such as increased stigma and decreased community cohesion, may further hinder economic well-being. Given the legal, social, and health-related implications, a conservative stance is warranted, suggesting that associated challenges and risks may overshadow any financial benefits.

### Ethical considerations in psychedelic use

General ethical considerations for psychedelic drugs encompass autonomy and informed consent, emphasizing individuals' right to make informed choices about their drug use. However, safety and mental health considerations are paramount, necessitating a focus on minimizing psychological risks and providing supportive environments. Ethical guidelines for professionals and researchers are crucial in medical and therapeutic contexts. Cultural and religious sensitivity is essential, as well as respecting diverse beliefs and avoiding the imposition of Western perspectives. Additionally,



balancing individual freedom with concerns about potential drug abuse is a crucial ethical consideration.<sup>[16]</sup>

Concerning the Iraqi society, specific ethical considerations arise due to its predominantly Muslim population. Respect for Islamic principles, which generally prohibit mind-altering substances, is vital.<sup>[17]</sup> Understanding and respecting the legal status of psychedelic drugs in Iraq is crucial, influencing ethical discussions around access, use, and research. Consideration of cultural norms, regional variations, and adherence to traditional values is necessary. Public health and safety concerns require careful attention, particularly in ongoing challenges and conflicts. Education and awareness campaigns tailored to the cultural and religious context, equitable access to mental health resources, and community involvement in ethical discussions are essential for navigating the unique landscape of Iraq.

## CONCLUSION

Research on psychedelics awareness and usage among Iraqi medical students is paramount. Such studies can shed light on cultural, temporal, and regional factors influencing addiction behaviors, thereby guiding the development of effective interventions and educational campaigns. As Iraq continues to navigate through its diverse challenges, comprehensive research should contribute to safeguarding the well-being of its future medical professionals and the collective society.

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**Abbreviations list:** 5-hydroxytryptamine 2 A (5-HT<sub>2A</sub>), Amphetamine-type substances (ATS), European School Survey Project on Alcohol and Other Drugs (ESPAD).

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