# Socio-Demographic and Clinical Characteristics of Iraqi Crystal Meth Users

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## Abstract

Methamphetamine, known as crystal meth, is a potent psychostimulant frequently abused for recreational purposes. Despite its prevalence, methamphetamine abuse in Iraq remains insufficiently understood. The current research, a descriptive study implementing a cross-sectional study design and convenience sampling technique, aims to examine the characteristics of methamphetamine users in Iraq, encompassing sociodemographic factors, economic aspects, clinical presentations, co-occurring psychiatric conditions, and physical comorbidities. Patients were recruited from Baghdad Medical City and Ibn-Rushd Teaching Hospital. Comprehensive data were gathered on patient demographics, frequency of methamphetamine use, clinical manifestations, attempts at substance abstinence, associated psychosomatic disturbances, and potential triggering events leading to stimulant use disorder, among other variables. The current study recruited 165 patients with crystal methamphetamine addiction, comprising males (92.1%) and females (7.9%). Although males were slightly older than their female counterparts (26.7 versus 25.5, p-value=0.696), this difference was not statistically significant. Most methamphetamine users were married (48.5%), had barely completed primary school education (51.5%), resided in urban areas (87.3%), and engaged in freelance work (72.1%). Most patients reported daily substance use over an extended period (1-5 years), primarily through inhalation. Users frequently experienced auditory and visual hallucinations, with persecutory delusions being prevalent. On the contrary, fewer patients exhibited delusions of infidelity. Poly-substance abuse was also prevalent, with alcohol being the most commonly abused substance. Notably, many users spent approximately \$200 monthly on acquiring crystal meth. The present research highlights multifaceted challenges faced by methamphetamine users, particularly young males, encompassing socio-economic difficulties, limited education, unstable employment, urban living, and existing marital commitments. Successful recovery hinges on addressing these issues and providing affordable treatment, with medically supervised detoxification essential for managing withdrawal manifestations.

Keywords: Addiction treatment centers; addictive behavior; psychiatric and behavioral problems in Iraq; stimulant use disorder; substance use and abuse.

#### Introduction

Methamphetamine, a potent psychostimulant, exerts its effects by inhibiting the reuptake of monoamine neurotransmitters like dopamine, norepinephrine, and serotonin. It is commonly consumed through smoking or snorting, with less frequent usage involving injection or oral ingestion, and its impact can persist for hours. This synthetic substance can be domestically manufactured <sup>(1,2)</sup>. According to the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), methamphetamine abuse is categorized as a psychostimulant abuse disorder  $^{(2,3)}$ .

The synthesis of crystal methamphetamine can be accomplished using relatively inexpensive over-the-counter medications <sup>(4)</sup>. In the 1950s, methamphetamine was legally manufactured in the United States as medical tablets. However, its illicit usage gained popularity among various demographics, including college students, truck

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The prevalence of amphetamine use is highest among adolescents and young adults aged 18 to 25 and across various socio-economic strata, with a notable concentration among Caucasians <sup>(6)</sup>. In recent years, Iraq has witnessed a dramatic surge in Amphetamine type stimulants (ATS), especially methamphetamine abuse <sup>(7)</sup>, though the exact extent of this exponential increase has yet to be accurately assessed. Methamphetamine and other ATS are among the fastest-growing abuse substances worldwide, especially in developed nations with flaccid legal and regulatory systems, such as Iraq <sup>(7)</sup>. The most prevalent illicit drugs worldwide were marijuana, opioids, and cocaine. Marijuana was the most widely abused, with about 188 million annual users. Opioids, including prescription painkillers and heroin, had an estimated 53 million users globally in 2022. Cocaine use increased in North America, Western and Central Europe, Oceania, and some South American countries <sup>(8)</sup>. On another note, due to stringent control measures, the COVID-19 pandemic indirectly reduced drug use in China <sup>(9)</sup>. The current study utilizes descriptive statistics to examine the socio-demographic and clinical profiles of Iraqis involved in crystal methamphetamine consumption. Emphasizing observation over hypothesis testing, the present research explores the regional impact of this societal concern, potentially transcending Iraq's borders to neighboring Middle Eastern nations such as Iran, Turkey, and the Syrian Arab Republic.

## Materials and Methods

#### Study design, data collection, and biostatistics

The present research, utilizing a crosssectional design, incorporates data from two specialized mental healthcare institutions, including Baghdad Teaching Hospital and Ibn-Rushd Teaching Hospital, collected between February and October 2021. Clinical manifestation data were obtained by surveying socio-demographic data and other parameters of interest through semistructured interviews administered by qualified psychiatrists. Most patients exhibited mental fitness to respond; when not feasible, information was sourced from families or legal guardians.

Convenience sampling was employed among patients seeking medical assistance at specialized addiction clinics. The study comprised 165 participants, all of whom were addicted to methamphetamine. Raw data were tabulated using Microsoft Excel 2016, and then data were anonymized to remove patient identifiers. Subsequently, the anonymized data was imported into IBM Statistical Package for Social Sciences (IBM-SPSS) version 26 for descriptive statistical analysis.

## The DSM-5-adapted survey tool

A panel of expert psychiatrists, led by a consultant psychiatrist with systematic knowledge of methamphetamine abuse literature and expertise in the Diagnostic and Statistical Manual of Mental Disorders (5th edition) criteria for substance use disorders, developed a survey. Unlike traditional questionnaires requiring validation (internal and external validity) and reliability analysis (replicability), this survey, focusing on sociodemographic and clinical parameters, diverged from structured questionnaires by excluding like metrics the Likert scale or other unidimensional measures.

Specialist psychiatrists then administered the survey through structured personal interviews with the patients. These interviews aimed to collect information spanning three crucial domains: (1) socio-demographic parameters, which included age, gender, marital status, level of education, place of residence (urban or rural), and occupation; (2) characteristics and patterns of substance abuse behavior, covering duration, frequency, use of the substance in isolation or combination with others (poly-substance abuse), method of substance administration, and monthly expenditure on crystal meth; (3) clinical manifestations, encompassing visual and auditory hallucinations, paranoid delusions, delusions of infidelity, bouts of aggression, weight loss, loss of appetite, sleep disturbances, and thoughts or attempts of suicide. The clinical manifestations were diagnosed by the same panel of psychiatrists mentioned earlier.

The DSM-5 provides criteria for diagnosing stimulant use disorder, including crystal meth addiction. Within twelve months, at least two of the following elements must be present: (a) quantity and duration of stimulant misuse; (b) persistent desire or unsuccessful attempts to control or abstain from stimulant use; (c) spending significant time obtaining, using, and recovering from the effects of the stimulant; (d) cravings for the stimulant; (e) failure to meet essential role obligations due to recurrent stimulant use; (f) continued substance use despite social and interpersonal problems; (g) giving up on activities due to stimulant use; (h) engaging in stimulant use in hazardous situations; (i) continued use despite knowledge of risks; (j) developing tolerance, requiring increased amounts to achieve the desired effect <sup>(7)</sup>. The former criteria are vital for diagnosing and addressing stimulant use disorder effectively.

#### The exclusion criteria

The study excluded minors (patients under 18 years old) and those with dual diagnoses, including patients with psychostimulant use disorder and psychiatric comorbidity. Experienced specialist psychiatrists were consulted to minimize the risk of misidentification of such cases (dual diagnoses). Nevertheless, there is a potential for some patients with dual diagnoses to have been overlooked or misidentified. According to the former criteria, 19 patients were excluded.

#### **Research ethics**

Before commencing the study. the researchers obtained ethics approval from the Department of Internal Medicine bioethics committee, a constituent of the College of Medicine at the University of Baghdad. The approval was granted per study protocol number 16, dated Dec 27, 2018. Furthermore, the research adhered to ethical standards in obtaining informed consent from every patient enrolled in the study. Before consenting, each patient received a clear explanation of the study's nature and purpose. The

present research endeavors were guided by the ethical principles enshrined in the Declaration of Helsinki by the World Medical Association and the Framingham Consensus of 1997.

## **Results and Discussion**

Iraqi crystal methamphetamine users consisted mainly of males, accounting for 152 patients (92.1%), with females making up the remaining 7.9% of the sample. The average age of the participants was 26.6 years, with a standard error of the mean of 0.5 (26.6±0.5). Interestingly, the average ages of males  $(26.7\pm0.6)$  and females  $(25.5\pm1.5)$  were quite similar (p-value=0.696) per the Mann-Whitney U test. Further, normality testing, specifically the Shapiro-Wilk test, revealed that the age distribution within the total sample did not conform to a normal distribution. In summary, most patients fell within their third decade of life, and it is worth noting that males were approximately one year older on average compared to their female counterparts.

In terms of marital status, most patients fell into two categories: 80 patients (48.5%) were married, while 43.6% were single, and a smaller represented divorced individuals. portion constituting only 13 patients (7.9%). Regarding education, 85 patients (51.5%) completed primary school, followed by 27.9% who finished secondary (intermediate) school, and 10.9% completed high school (Table 1). Crystal meth users who were illiterate or held a college degree were in the minority (5.5%) and 4.2%, respectively).

 Table 1. Summary of Iraqi crystal meth users' socio-demographics

Socio-demographics	Frequency	Percentage
Marital Status		
Married	80	48.5%
Single	72	43.6%
Divorced	13	7.9%
Educational Background		
Primary School	85	51.5%
Secondary School	46	27.9%
High School	18	10.9%
Illiterate	9	5.5%
College Degree	7	4.2%
Residential distribution		
Urban	144	87.3%
Suburban	12	7.3%
Rural	9	5.5%
Occupation		
Freelancers & daily wages	119	72.1%
(Para)military/government/beauty shops	33	20.0%
Housewives	7	4.2%
Students	6	3.6%

Residential distribution revealed that nearly ninetenths of the patients, specifically 144 patients (87.3%), resided in urban areas, while the remainder lived in suburban (7.3%) or rural areas (5.5%). Most patients, accounting for 72.1%, were engaged in freelance work or held positions in the private sector without long-term contracts. The remaining patients had diverse roles, including employment in military para-military or

organizations, beauty shops, or government positions. A smaller subset consisted of six students (3.6%), and there were also seven females (4.2%) primarily serving as housewives (Figure 1). In summary, the demographic profile of methamphetamine users indicates a prevalence of married crystal meth users, limited education beyond primary school, urban residence, and challenges in securing stable employment.



Figure 1. Bar chart presentation of methamphetamine users' occupation

Most crystal meth users, specifically three-fourths of them, struggled with problematic addictions to the substance for varying durations. A significant portion, constituting 84 patients (50.9%), grappled with their addiction for 1-5 years, while another addiction for 6-12 months. 23.6% faced Comparatively fewer patients (14.5%) had relatively short-term addictions of at least six

months, and a smaller group (10.9%) had been long-lasting users of crystal meth for over five years. Regarding frequency of use, nearly twothirds of methamphetamine users, specifically 112 patients (67.9%), reported using the substance daily. About one-third of users (30.3%) used it weekly, while only a handful (1.8%) consumed it monthly (Table 2).

Use Pattern	Frequency	Percentage
Use Duration		
1-5 years	84	50.9%
6-12 months	39	23.6%
$\leq$ Six months	24	14.5%
> Five years	18	10.9%
Use Frequency		
Daily	112	67.9%
Weekly	50	30.3%
Monthly	3	1.8%

Almost half of the patients (44.8%) used other substances (poly-substance abuse), including alcohol (36.3%), diazepam (14.3%), tramadol (13.2%), fenethylline (captagon; 01 pill) (6.6%), trihexyphenidyl (Artane) (5.5%),codeinecontaining cough products (3.3%), and cannabis (2.2%). Concerning the method of administering methamphetamine, a substantial number of patients

either inhaled it (55.8%) or opted for oral administration and smoking (43%), while a minority (1.2%) used a combination of oral and inhalation methods. On another note, and regarding the social context of use, 115 patients (69.7%) consumed the substance in solitude, while the remainder (30.3%)administered it while interacting with partners and peers.

As a result of their regular and chronic methamphetamine abuse, patients frequently allocated funds towards acquiring the substance. Nearly two-thirds of them spent up to 300,000 Iraqi Dinars (IQD) per month. Ten patients (6.1%) spent nearly one million IQD monthly (Figure 2). The access to the substance was typically facilitated through interactions with either a drug dealer (50.9%), friends (46.1%), or at a "coffee shop" (3%). On another note, the researchers did not inquire about the source of the patients' funds. Nonetheless, it could have originated from various sources such as employment as dealers, borrowing (or potentially stealing) from family members, their salaries, or alternative avenues, including illicit ones like theft, engaging in prostitution for financial gain, fraudulent activities, and blackmail.



Figure 2. Crystal methamphetamine users' monthly expenditure for substance purchase.† Currency in Iraqi Dinars (IQD). 100 USD ≈ 150,000 IQD during August 2022.

Concerning efforts to abstain from crystal methamphetamine, 50 patients (30.3%) had never attempted to quit using the substance. Another third had made one, two, or three abstention attempts, specifically 12.1%, 15.8%, and 9.7%, respectively, while the remainder had undertaken up to more than a dozen abstention efforts. In terms of withdrawal symptoms experienced following abstinence attempts, a significant proportion of patients reported symptoms such as body aches (32.1%), nervousness (11.5%), and lethargy (9.1%). Approximately one-third of crystal meth users (59 individuals) did not encounter withdrawal features, while others reported experiencing

depression, a combination of anxiety and depression, or hallucinations.

Clinical data, encompassing signs and symptoms, were collected through semi-structured interviews conducted by specialized psychiatrists. When patients could not respond, information was sourced from their families or legal guardians. Among methamphetamine users, 41.8% reported auditory hallucinations, 40.6% experienced visual hallucinations, 54.5% suffered from persecutory delusions, and 27.9% dealt with delusions of infidelity (Othello syndrome) concerning their marital partner or significant other (Table 3).

Feature	Frequency	Percentage
Psychotic Manifestation		
Persecutory delusions	54.5	54.5%
Auditory hallucinations	41.8	41.8%
Visual hallucinations	40.6	40.6%
Delusions of infidelity	27.9	27.9%
Non-Psychotic Manifestations Sleep disturbances	153	92.7%
Anorexia	149	90.3%
Weight loss	132	80.0%
Aggression	121	73.3%
Suicidal ideations	52	31.5%

Table 3. Psychotic and non-psychotic features prevalence in crystal meth users.

A significant number of users, encompassing 121 patients (73.3%), exhibited aggression while using crystal meth (or under the substance's influence), while 92.7% experienced sleep disturbances, 90.3% had anorexia, and 80% suffered severe weight loss. Suicidal ideations were reported by

31.5% of patients. Some also had mood and physical disturbances like depression, anxiety, musculoskeletal joint aches, and weakness. Conversely, about one-third had no associated mood disturbances, and two-thirds lacked associated physical disturbances (Figure 3).



Figure 3. Mood disturbances and physical illnesses in methamphetamine users.

#### Demographic data

In the current study, a predominant portion of the patient cohort comprised males (92.1%), a trend that resonates with findings from the Iraqi National Household Survey of Alcohol and Drug Use in 2014. Notably, the Iraqi National survey reported negligible illicit drug usage among women. In the current study, the representation of females was 7.9%. The gender-based disparity in use can be attributed to deeply ingrain cultural norms, a restricted sphere of influence for females within Iraqi society, and the heightened difficulty women face in accessing such substances compared to their male counterparts (10) Additionally, an enlightening study conducted in 2019 shed light on the heightened sensitivity of women to the psychomotor-related behavioral and subjective effects of methamphetamine. These insights serve as a preliminary understanding of gender-based disparities in the acute effects of methamphetamine, which may contribute to

differences in problematic use between males and females <sup>(11)</sup>. Regarding age demographics, most of the patients fell within the third decade of their lives, aligning with the findings of a prior Iraqi study on substance use disorders conducted in 2009. The former study highlighted that patients between 18 and 40 were most susceptible to substance use problems <sup>(12)</sup>. Similarly, a study conducted in the United States from 2005 to 2018 revealed that the age of onset for cocaine or methamphetamine use remained relatively consistent, with initiation at around 20 years of age (age of onset), which raises concerns as substance use during adolescence can lead to adverse longterm consequences, considering that brain development continues well into one's twenties (13).

Concerning marital status, a noteworthy proportion of crystal methamphetamine users in the current study were married, mirroring findings from research on crystal methamphetamine use in China <sup>(14)</sup>. Furthermore, a study from 2018 delving into the impact of marital status on substance abuse concluded that marriage is often regarded as a safeguard mechanism facilitating protection against drug use. However, the quality of partner relationships, engagement with the significant other, and various factors like leisure time activities, the depth of the relationship, commitment, and intimacy played a pivotal role in influencing this relationship between marital status and substance use <sup>(15)</sup>.

In this study, the initiation age of crystal meth use remains unknown, spanning from adulthood to earlier years. The majority of users completed only primary school, and they could have been influenced by factors like low-income backgrounds, lack of familial support, lower socio-economic status, and the adverse effects of drug use on cognition and academics. Frequent school or work absences, disinterest in related activities, and declining performance contributed to this educational profile <sup>(16)</sup>. Moreover, many worked as freelancers, a trait associated with unstable employment and potentially linked to lower education and academic performance <sup>(17)</sup>.

In the current research, it was observed that most of crystal meth users resided in urban areas. This phenomenon may be attributed to heightened stress levels in urban settings compared to suburban and rural areas, increased substance availability (crystal meth), and the amplified peer pressure experienced in densely populated urban locales <sup>(18,19)</sup>. These findings align with previous research, including earlier studies conducted in Iraq by Al-Hemiary and Talib in 2008 <sup>(19)</sup>.

## Clinical data

In the current investigation, the predominant method of crystal methamphetamine consumption among users was through inhalation, a pattern consistent with findings reported in previous research <sup>(18,20,21)</sup>. Notably, a significant segment of crystal meth users exhibited concurrent substance use (poly-substance) issues, with alcohol being the most commonly co-used substance. The former trend aligns with a study conducted in Canada by Russell et al. in 2008 (22). The consumption of alcohol alongside crystal meth may be attributed to a potential "self-medication" strategy, where patients leverage the central neural depressant properties of alcohol to counteract the psychostimulant effects of crystal meth. However, it is essential to consider that various factors, including shared predisposing factors among vulnerable patients, such as socio-demographic characteristics, family history, personality traits, psychiatric disorders, ethnicity, and genetic predisposition, could influence the simultaneous use of these substances (7,11,22).

Many methamphetamine users reported spending approximately one-third of a million IQD

monthly, equivalent to around 200 USD, to acquire the substance. This expenditure could be converging on collateral findings from a 2005 study conducted in the United States. According to Nicosia et al. (2005), the national cost of crystal methamphetamine use ranges between "a lowerbound estimate of \$16.2 billion and an upperbound estimate of \$48.3 billion." <sup>(23)</sup>.

Iraqi crystal methamphetamine users a high prevalence of various exhibited manifestations, including delusions, hallucinations, mood disturbances, and physical symptoms, aligning with previous research findings (24-26). Interestingly, a notable proportion of crystal meth users had never attempted to quit the substance, while those who did make such attempts often experienced withdrawal manifestations, a collective of signs and symptoms. Furthermore, the current survey delved into broader societal and miscellaneous disruptions associated with crystal meth use, including incidents such as police arrests, car accidents, and marital conflicts (27).

In 2022, Hashisha and colleagues conducted a study that delved into the issue of crystal methamphetamine abuse among 82 Egyptian patients receiving care at the Ismailia Mental Health Clinic <sup>(28)</sup>. The former study from Egypt shares certain similarities with the current research. Auditory hallucinations were reported by 41.8% of the current research, while a study from Egypt reported a higher prevalence of 57.3%. Auditory hallucinations may stem from pre-existing mental disorders, sleep deprivation, or the direct effects of crystal meth on the neuronal activities of the brain, leading to an increase in neurotransmitters like dopamine. On another note, visual hallucinations were observed in 40.6% of patients. In contrast, the Egyptian study reported a higher prevalence of Possible explanations 64.6%. for visual hallucinations include methamphetamine-induced psychiatric disorders, the emergence of latent psychiatric disorders, or the direct impact of crystal dopamine meth on levels, resulting in neurotransmitter imbalance.

Concerning neurotic features, depression affected 24.24% of the participants, which somewhat aligns with the findings of the Egyptian study, where depression was more prevalent. Depression could be linked to the structural and functional (physiological), biochemical, and cellular changes in the brain induced by methamphetamine. Further, evidence of aggression episodes was prevalent in 73.3% of Iraqi patients, aligning with a similar study conducted in Egypt, where over half of the studied sample displayed aggressive behaviors <sup>(28)</sup>. The former phenomenon may be attributed to the perception of an unsafe world, sleep deprivation, or psychotic features, such as paranoia.

Muscle and joint pain existed in 18.8% of the Iraqi patients, possibly stemming from the direct toxic effects of the substance on muscle cells, increased body temperature, heightened physical activity, or poor sleep. Weight loss was prevalent in 80% of Iraqi crystal meth users, primarily due to methamphetamine's appetitesuppressing properties and ability to boost metabolic rates. In the current research, palpitations were reported in only 2.42%, significantly lower than the rate of 45.1% observed in the Egyptian study <sup>(28)</sup>. This discrepancy may arise from methamphetamine's ability to increase catecholamine levels, subsequently elevating heart rate and blood pressure. The wide variation between the two figures could be attributed to selfreporting or misunderstandings of information. Study limitations

The study's findings should be interpreted in light of certain limitations. The relatively small sample size may restrict the generalizability of results, and the cross-sectional design hinders establishing temporal relationships between exposure and outcome. The exclusion of individuals under 18 and those with dual diagnoses (i.e., patients with concurrent psychostimulant use disorder and psychiatric comorbidity) introduces potential limitations, even with efforts to minimize oversight. In summary, while the study provides valuable insights into methamphetamine use, acknowledging limitations such as sample size, study design, and potential exclusions is crucial. Future research with more extensive, diverse samples and longitudinal designs can address these limitations and enhance the understanding of methamphetamine addiction. Additionally, leveraging advancements in artificial intelligence, like generative AI and natural language processing, may offer valuable tools for analyzing patient perspectives on crystal methamphetamine use (29).

## Conclusion

The current research examined the challenges faced by Iraqi crystal methamphetamine the emphasizing socio-demographic, users. behavioral, and clinical aspects. The prevalence of use among young males calls for targeted interventions and attention to socio-economic factors like marital status, limited education, unstable employment, and urban residence. Recovery efforts should prioritize support for affected families. The chronic nature of methamphetamine addiction, including persistent substance use patterns, daily consumption, and (poly-substance) abuse, requires concurrent affordable treatment options and economic support. Mixed results in abstinence efforts signal a need for improved outreach. Withdrawal symptoms, particularly body aches, underscore the importance of supervised detoxification. On another note, recommendations for tackling methamphetamine

addiction include tailored interventions for diverse groups, targeted family and community support programs, comprehensive treatments addressing poly-substance use and socio-economic factors, accessible financial assistance options, intensified outreach efforts, and expanded withdrawal management services. Implementing these suggestions requires a collaborative, multifaceted approach from policymakers, healthcare providers, and support organizations to enhance the wellbeing of affected individuals and communities.

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## Conflicts of Interest

The authors declare no conflicts of interest.

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## **Ethics Statements**

the researchers obtained ethics approval from the Department of Psychiatry bioethics committee, a constituent of the College of Medicine at the University of Baghdad. The approval was granted per study protocol number 16, dated Dec 27, 2018.

## Author Contribution

The authors confirm their contribution to the paper as follows: study conception and design: Ahmed Al-Imam, Hussein Al-Ka'aby, and Nesif Al-Hemiary; data collection: Hussein Al-Ka'aby; analysis and interpretation of results: Ahmed Al-Imam and Nesif Al-Hemiary; draft manuscript preparation: Ahmed Al-Imam, Marwa Jameel, Adnan Yaseen, and Nesif Al-Hemiary. Ahmed Al-Imam and Nesif Al-Hemiary assumed the role of research team co-leaders. All authors reviewed the results and approved the final version of the manuscript.

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# السمات الاجتماعية والديموغرافية والسريرية لمستخدمي الميث البلوري من العراقيين

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#### الخلاصة

الميثامفيتامين، المعروف باسم الكريستال ميث، هو منشط نفسي قوى يتم تعاطيه بشكل متكرر لأغراض ترفيهية. على الرغم من انتشاره، لا يزال تعاطي الميثامفيتامين في العراق غير مفهوم بشكل كافٍ. يهدف البحث الحالى، من خلال استخدام دراسة مقطعية وتقنية أخذ العينات الملائمة (المتّاحة), ، إلى دراسة خصائص مستخدمي الميثامغيتامين في العراق، بما في ذلك العوامل الاجتماعية والديموغرافية، والجوانب الاقتصادية، والأعراض السريرية، والحالات النفسية المتزامنة، وغيرها من الأمراض المصاحبة. تم تجميع المرضى من مدينة بغداد الطبية ومستشفى ابن رشد التعليمي. تم جمع بيانات شاملة عن التركيبة السكانية للمرضى، وتواتر استخدام الميثامفيتامين، والمظاهر السريرية، ومحاولات الامتناع عنه، والاضطرابات النفسية الجسدية المرتبطة بها، والأحداث المحفزة المحتملة التي تؤدي إلى اضطراب استخدام المنشطات، من بين متغيرات أخرى. شملت در استنا ١٦٥ مريضا يعانون من إدمان الميثامفيتامين البلوري، منهم ذكور (٢,١٣٪) وإناث (٧,٩٪). على الرغم من أن الذكور كانوا أكبر سنًّا بقليل من نظرائهم الإناث (٢٦,٧ مقابل ٢٥,٥، القيمة الاحتمالية = ٢٩,٦)، إلا أن هذا الاختلاف لم يكن ذا دلالة إحصائية. وكان معظم مستخدمي الميثامغيتامين متزوجين (٤٨,٥٪)، وبالكاد أكملوا التعليم الابتدائي (٥,١٥٪)، ويقيمون في المناطق الحضرية (٨٧,٣٪)، ويعملون لحسابهم الخاص (٧٢,١). أبلغ معظم المرضى عن تعاطيهم اليومي للمواد على مدى فترة طويلة (١-٥ سنوات)، وذلك عن طريق الاستنشاق في المقام الأول. كثيرًا ما يعاني المستخدمون من الهلوسة السمعية والبصرية، مع انتشار الأوهام الاضطهادية. على العكس من ذلك، أظهر عدد أقل من الأفراد أوهام الخيانة الزوجية. كان تعاطي المواد الأخرى هو السائد، وكان الكحول هو المادة الأكثر تعاطيًا. والجدير بالذكر أن العديد من المستخدمين أنفقوا ما يقرب من ٢٠٠ دولار شهريًا للحصول على الكريستال ميث. يسلط بحثنا الضوء على التحديات المتعددة الأوجه التي يواجهها متعاطى الميثامفيتامين، وخاصة الشباب الذكور، بما في ذلك الصعوبات الاجتماعية والاقتصادية، والتعليم المحدود، والعمالة غير المستقرة، والحياة الحُضرية، والالتزامات الزوجية القائمة. يعتمد التعافي الناجح على معالجة هذه المشكلات وتوفير العلاج بأسعار معقولة، مع إزالة السموم تحت إشراف طبي وهو أمر ضروري لإدارة مظاهر الانسحاب التي تلى الأنقطاع (التوقف) عن أستخدام الميثامغيتامين البلوري. الكلمات المفتاحية: مراكز علاج الإدمان؛ السلوك الإدماتي؛ المشاكل النفسية والسلوكية في العراق؛ اضطراب استخدام المنشطات؛ سوء استخدام العقاقير.