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Crystal Methamphetamine Abuse among Patients Attending Ismailia Mental Health Clinic: Aggressive Behavior and Psychiatric Comorbidity

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Abstract

Introduction: Addiction is one of the serious health problems worldwide. In Egypt it is a highly growing health problem. Methamphetamine addiction is one of the most dangerous health issues as it is highly addictive drug and its abuse is strongly associated with severe aggressive behavior and violent crimes. Over the past few years; there is an alarming increase in crystal methamphetamine (Shabu) abuse in the Egyptian market. **Aim of the study:** To describe the clinical characteristics of crystal methamphetamine (Shabu) abuse and to detect its association with aggression and psychiatric disorders **Patients and Methods:** A descriptive cross-sectional study, it was conducted upon crystal methamphetamine abusers attending Ismailia Mental Health Clinic; they were clinically and psychologically assessed by an expert psychiatrist to determine the presence of aggressive behavior, cognitive impairment and mental health disorders. **Results**: The study was conducted upon 82 crystal meth abusers. Most participants are males with mean age were 27.4 years, the majority of the participants suffered from headache, numbness and tingling. The study revealed that about half of the study participants had severe degree of aggression, more than half of them had severe depression and more than three fourths had moderate and severe anxiety. **Conclusion and recommendations:** Crystal methamphetamine abuse is a major risk factor of aggression/violence, depression, anxiety and cognitive impairment. We should pay attention towards early detection and proper management of crystal meth abuse.

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Key words Crystal meth, Methamphetamine, Shabu, Substance abuse, Aggression

Introduction

Drug abuse is one among the rapidly growing health problems worldwide; In Egypt as in many other developing countries, it is a highly growing health issue (Amin et al., 2019; Hamedi et al., 2016). Drug abuse may contribute to major psychological and legal consequences (Farnia et al., 2016). The Egyptian government is annoyed from this issue because youth within the age of productivity were targeted (Amin et al., 2019).

Methamphetamine abuse is one of the most dangerous health issues that have been spread throughout the world. It is the second most prevalent abused drug globally (UNODC, 2013; Shrem and Halkitis, 2008). Methamphetamine is central nervous system stimulants; it is known as crystal meth; chalk; crank; and ice. It is highly addictive drug, it can be snorted, ingested or smoked (Farnia et al., 2016). Crystal methamphetamine (which is known in Egypt as shabu) is one of the potent forms of methamphetamine (Rezaei, 2017).

Methamphetamine abuse is becoming a rising public health concern, with catastrophic consequences for abusers and their communities (Watt et al., 2014). Its abuse is associated with many mental health disorders and has many consequences on cognitive functioning which lead to various adverse behavioral changes and consequently social isolation (Kim et al., 2011). Methamphetamine is one among the drugs that's strongly related to severe aggressive behavior; high rate of violence and violent crimes (Singh et al., 2021; Foulds et al., 2020; Ba´cskai et al., 2012), more crimes related to methamphetamine abuse appear in forensic practice in the past few years (Liu et al., 2017), many researchers reported that amphetamine abusers are much more likely to perpetrate crimes under the influence of the drug (Singh et al., 2021; Gizzi and Gerkin, 2010).

Violence is a serious social problem in many countries, it may end in violent crimes and it's associated with legal sequelae, many studies reported association between drug abuse and aggression (Yassa and Badea, 2019). Over the past few years; the Egyptian market for drugs of abuse has undergone marked changes; there is an alarming increase in crystal methamphetamine abuse in the Egyptian community especially among younger ages and this highlighting the importance of looking at co-morbid issues related to methamphetamine abuse.

To our knowledge there are no sufficient studies that highlight the crystal methamphetamine (Shabu) abuse

problem among Egyptian population. Current study was conducted to describe the clinical characteristics of crystal methamphetamine abuse among patients attending Ismailia Mental Health Clinic and to detect its association with aggression and mental health disorders.

Patients and Methods

A cross-sectional descriptive study was conducted upon 82 participants (their age ≥18 years); who attended Ismailia Mental Health Clinic in the period between September 2020 to March 2021 seeking for treatment of Methamphetamine dependence. Diagnosis of Methamphetamine abuse was determined according to self-reported history of abuse, the preliminary urine screening test and Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition "DSM-IV" criteria for Methamphetamine dependence in the previous 12-month. Patients who had a history of any other substance abuse other than methamphetamine, those with positive drug screening for other substances rather than methamphetamine and those who met the DSM-IV criteria for dependence on any other substances other than methamphetamine (except tobacco) were excluded from the study. Those who have history of psychiatric disorder, anxiety disorder, mood disorder were also excluded from the study. All patients were clinically assessed and interviewed by an expert psychiatrist using a structured pre-designed questionnaire to provide information regarding their demographic data, data about Methamphetamine consumption, self-reported clinical and psychological symptoms. This questionnaire was based on a prior study (Degenhardt and Topp, 2003).

Study tools:

Drug screening: Urine samples (usually 10-50 ml) were collected from each abuser. All samples were screened by dip stick to confirm their history about methamphetamine abuse, and to exclude other associated drugs of abuse. The screened drugs were Cannabis, Benzodiazepine, Morphine, Tramadol, Barbiturates Cocaine and Amphetamines. Dip stick is immunoassay which is depended upon the ability of the antibody to bind with the drug of abuse (Feldkamp, 2010). It is rapid qualitative screening test; one of its main disadvantages is false positive results for some medications. Considering that antihistamines, nasal inhalers, chemically related compounds (eg, pseudoephedrine), tricyclic medicines, quetiapine, metformin, proton pump inhibitors and bupropion may cause false positive results for amphetamine screening test (Wu, 2001; Moller et al., 2008).

Modified Overt Aggression Scale (M-OAS): was used to assess frequency, type and severity of aggressive behavior (Assaf et al., 2018; Coccaro et al., 1991). It rates aggressive behavior considering four types of aggression (verbal, self-aggression aggression against objects and against others). Total score of M-OAS ranges from 0 – 40 (0 = no aggression, 1to 10 = minimal aggression, 11to 20 = mild aggression, 21to 30= moderate aggression, and 31to 40= severe aggression) (Chukwujekwu and Stanley, 2008; Endicott et al., 2002). M-OAS reliability was determined to be statistically significant (intra-class correlation coefficients: 00.91, *n*s22, *P*-0.001) (Coccaro et al., 1991).

Beck Depression Inventory (BDI-II): it was used for diagnosis and measurement of the depression severity (Beck et al., 1988); the BDI includes 13 items, which are rated from 0-3 severity scale (Ro´zsa et al., 2001).

Beck Anxiety Inventory (BAI): it is a brief, self-report assessment for measuring level and severity of anxiety. It consists of 21 items with a Likert scale ranging from 0 to 3 and raw scores ranging from 0 to 63. Arabic version by Al-Issa et al. was used (Al-Issa et al., 2000).

Mini mental state examination (MMSE): it is used for screening of the cognitive function; as it indicates the presence of cognitive impairment. Arabic version was performed to assess global cognitive function (Folstein et al., 1975).

Ethical considerations: Administrative approval from the General Manager of Ismailia Mental Health clinic was obtained. The approval on the study by the Research Ethics Committee of Faculty of Medicine, Suez Canal University was taken. All patient were asked to sign a written informed consent, the questionnaire was anonymous. Participants were distinguished by being given codes to assure participants' privacy rights.

Data analysis: SPSS 20.0, statistical program (SPSS Inc., Chicago, Illinois, U.S.A.) was used. Descriptive statistics were presented in frequency and percent.

Results

Socio-demographic characteristics of the studied group (N=82) are described in Table1. Participants were primarily males representing (78.1%); participants' mean age was 27.4 years (range18–47 years). Most participants were completed high school education representing (41.5%) and only (9.8%) had a bachelor's degree or higher. The majority was single (42.7 %). Over two-thirds of participants were employed (69.5 %). Over half of participants (54.9 %) were from urban areas. Most of participants are Cigarette smokers (90.24 %) while (20.73 %) are Shisha smokers.

Pattern of crystal methamphetamine abuse is labeled in Table 2. Mean age of first crystal meth use was 24±4 years; mean of the duration of crystal meth consumption was 11±3 months. About two thirds of the participant (65.85%) reported daily or nearly every day use of crystal methamphetamine in the preceding 6 months.

Regarding physical and psychological symptoms perceived by the participants as a result of their abuse of crystal meth, the majority of the participants suffered from headache (79.3%); numbness/tingling (75.6%); dizziness (59.8%); tremors/shakes (58.5%); hot/cold flushes (58.5%) and profuse sweating (52.4%). Irritability was the most predominant psychological symptom that the participants reported (95.1%) while sound hallucinations was least predominant symptom (57.3%) (Table 3).

Regarding the type of aggression associated with crystal meth abuse. More than two-third of participants had verbal aggression (67.1%) and more

than half of participants had aggressive behavior against others (59.8%) (Table 4).

Current research revealed that about half the study group had moderate aggression with a percent of (47.6%), followed by severe aggression; mild aggression and minimal aggression with percentages (22%, 17% and 13.4 % respectively) (Fig. 1).

Scores of Beck Depression Inventory (BDI -II) and Beck Anxiety Inventory (BAI) are presented in Tables 5, 6. The percentages of participants classified as mild to moderate, moderate to severe and severe depressed were (13.4 %, 32.9 %, and 53.7 %, respectively). Majority of participants diagnosed as had moderate anxiety (45.1 %) and severe anxiety (40.2%).

Mini mental state examination (MMSE) indicates the presence of moderate cognitive impairment in about two thirds of the participants (67.1%); and mild cognitive impairment in (29.3%) of the participants (Table 7).

Table (1): Sociodemographic data of studied sample of crystal methamphetamine abuser (N=82)

Sociodemographic data		Frequency (N=82)	Percent %
Age	Mean± SD Range	27.4±3.7 18-47	
	Age groups (yrs) Age 18 - < 20 Age 20 - < 30 Age 30 - < 40 Age 40 - < 60	 12 47 17 6	 14.64 % 57.32 % 20.72 % 7.32 %
Gender	Male Female	64 18	78.05 % 21.95 %
Education	Illiterate Less than high school High school graduate Bachelor's degree or higher	23 17 34 8	28.05 % 20.72 % 41.47 % 9.76 %
Marital status	Single Married Divorced/widows	35 26 21	42.68 % 31.71 % 25.61 %
Occupation	Employed Unemployed Irregular work	57 16 9	69.51 % 19.51 % 10.98 %
Residence	Rural Urban	37 45	45.12 % 54.88 %
Cigarette smoking	Yes No	74 8	90.24 % 9.76 %
Shisha smoking	Yes No	17 65	20.73 % 79.27 %

Table (2): Patterns of methamphetamine abuse among the studied sample of crystal methamphetamine abuser (N=82)

Crystal methamphetamine abuse patterns	Frequency (N=82)	Percent %
Age of first meth use (in years) (Mean± SD)	24±4	
Duration of abuse (in months) (Mean± SD)	11±3	
Average frequency of use in the preceding 6 months: • Daily or nearly every day • Used 2 or 3 days per week	 54 28	 65.85 % 34.15 %

Table 3: Physical and psychological side effects reported by the studied sample of crystal methamphetamine abuser (N=82)

Self-reported physical side effects	Frequency (N=82)	Percent %
Profuse sweating	43	52.44 %
Heart palpitations	37	45.12 %
Tremors/shakes	48	58.54%
Hot and cold flushes	48	58.54%
Numbness/tingling	62	75.61 %
Shortness of breath	23	28.05 %
Burning mouth/throat	41	50 %
Headache	65	79.27 %
Blurred vision	43	52.44 %
Dizziness	49	59.76 %
Chest pains	16	19.51 %
Fainting/passing out	19	23.17 %
Fits/seizures	38	46.34 %
Irritability	78	95.12 %
Mental confusion	59	71.95 %
Violent behaviour	64	78.05 %
Visual hallucinations	53	64.63 %
Sound hallucinations	47	57.32 %

more than one choice are allowed

Table 4: Distribution of the studied sample of crystal methamphetamine abuser according to the type of aggression (N=82)

Aggression Type *	Frequency (N=82)	Percent
Verbal aggression	55	67.1%
Aggression against objects	42	51.2%
Self-aggression	34	41.7%
Aggression against others	49	59.8%

More than one choice is allowed

Table 5: Distribution of studied sample of crystal methamphetamine abuser according to Beck Depression Inventory (BDI -II) score. (N=82)

Interpretation of Beck Depression Inventory (BDI -II)	Frequency (N=82)	Percent %
Normal (0-9)	0	0 %
Mild to Moderate (10-18)	11	13.41 %
Moderate to Severe (19-29)	27	32.93 %
Severe (30-63)	44	53.66 %

Table 6: Distribution of studied sample of crystal methamphetamine abuser according to Beck Anxiety Inventory (BAI) score (N=82)

Interpretation of Beck Anxiety Inventory (BAI)	Frequency (N=82)	Percent %
Minimal anxiety (0 - 7)	1	1.23 %
Mild anxiety (8 -15)	11	13.41 %
Moderate anxiety (16 – 25)	37	45.12 %
Severe anxiety (26 – 63)	33	40.24 %

Table 7: Descriptive analysis of studied sample of crystal methamphetamine abuser according to the mini mental state examination (MMSE) score.

The mini mental state examination (MMSE)	Frequency (N=82)	Percent %
Mild impairment (21-24)	24	29.27%
Moderate impairment (10-20)	55	67.07 %
Severe impairment (<10)	3	3.66 %

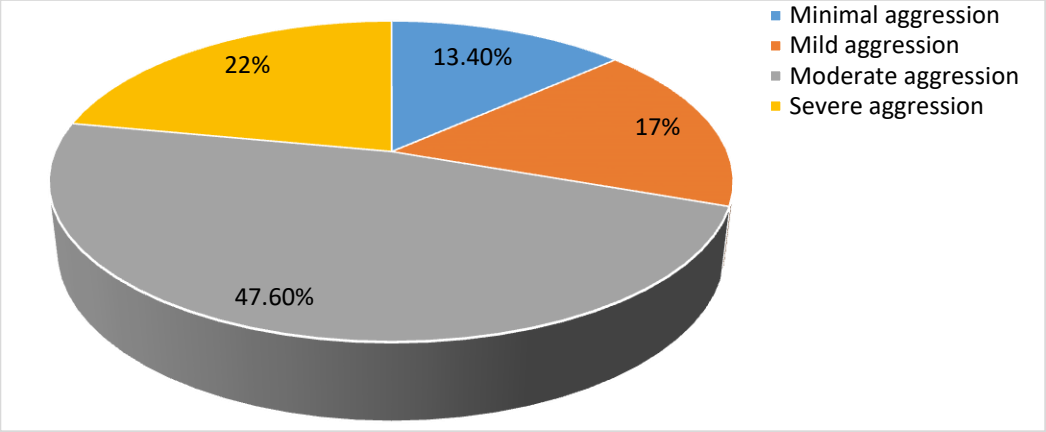

Figure 1: Severity of aggression among the studied sample of crystal methamphetamine abuser according to Modified Overt Aggression Scale (MOAS). (N=82)

Discussion

Drug abuse is a very dangerous growing phenomenon worldwide, about thirty million suffer from drug abuse disorders globally (World drug report, 2017). In Egypt; there is a significant increase in drug abusers (Hamdi et al., 2016). In the past few years; the Egyptian market for illicit drug abuse has undergone marked changes. There is an alarming increase in the abuse of Crystal Methamphetamine (Shabu) in the Egyptian community. This transition to crystal meth abuse is a growing problem worldwide (Fast et al., 2014). Very few studies had handled the problem of Crystal Meth (Shabu) abuse and dependence in Egypt.

Current study revealed that crystal meth abuse was higher among males, it also revealed that the critical age of crystal meth abuse was between 18 to 30 years old that represent more than two thirds of the study group; these results are in agreement with that of a study that was conducted in Upper Egypt (Yassa and Badea, 2019). Those findings can be explained by that the age of young adulthood is the age of social, cultural and economic transitions in Egypt which can be a favorable time for social disruptive pattern of drug use; also it is the age of significant peer pressure and influence (Amin et al., 2019).

The study also revealed that crystal meth abuse is more common in urban areas; this may be related to the more openness of the social life in urban area, more stress, easy availability of the drug and easy access to drug dealers (Hamdi et al., 2013).

The most frequently self-reported physical symptoms that were reported by the study group were headache; numbness/tingling; dizziness; tremors/shakes; hot/cold flushes; seizures and profuse sweating. While Irritability, confusion, violence, visual and auditory hallucinations were the most frequently self-reported psychological symptoms. These results are in agreement with Rezai who reported many complications of crystal meth abuse as: insomnia; restlessness and seizures (Rezaei, 2017) and with Cohen and his colleagues who reported hallucinations and paranoia were the most prevalent findings in methamphetamine abusers (Cohen et al., 2007). According to United Nations Organization report, a growing increase in the incidence of seizures among crystal meth abusers (Hamedi et al., 2016). These results are related to the central nervous system stimulant effect of crystal meth that leads to psychological; physical; and behavioral symptoms (Aguilar and Sen, 2013).

Concerning the association between crystal meth abuse and aggression, current study revealed that about half of the study group had severe degree of aggression, the most frequent types of aggression were verbal aggression and aggressive behavior against others, these results are in accordance with previous studies which declared the association between drug abuse and aggressive behavior (Martino et al., 2004; Hoaken and Stuart, 2003), they also reported significant increase of all forms of aggression (Stuart et al., 2008; Gerra et al., 2007; Hoaken and Stuart, 2003).

Chronic crystal meth abuse is strongly associated with severe forms of aggression (Ba´cskai et al., 2012; Reid et al., 2007; Sekine et al., 2006). Many studies reported linear relation between crystal meth abuse and violence perpetration and/or victimization in the community (Foulds et al., 2020; Fast et al., 2014), this could be related to that it exaggerates individual response to threatening situations; cognitive disorganization and its depressant effects that may affect mood regulation (Foulds et al., 2020). Other researchers relate this association to that methamphetamine may force the individual to behave erratically and to the economic pressures which force the abuser to commit crime to obtain the required money that meet his drug need (Singh et al., 2021).

Current study revealed that more than half of the participants had severe depression and these findings are in agreement with the study that was conducted by Baker and his colleagues who found many symptoms of depression among crystal meth abusers (Hamdi et al., 2013; Baker et al., 2005), this may be explained by that crystal meth is directly affects monoamine regulation in the brain, leading to a pseudo-depressive state that have many features of major depression as: depressed mood; sleep disturbances; appetite disturbances; poor concentration; lack of motivation; restlessness and irritability (Aguilar and Sen, 2013; McKetin et al., 2011).

Current results showed that more than three-fourths of the study participants had moderate and severe degree of anxiety; this was explained by previous studies that declared that crystal meth abuse is

usually associated with significant methamphetamine-induced psychiatric disorders (Rezaei, 2017; Farrell et al., 2002; Copeland and Sorensen, 2001).Copeland and Sorensen observed in their study that there are higher rates of psychiatric disorders ranging from major depression to anxiety disorders among crystal meth abusers (Copeland and Sorensen, 2001). Lin and his colleagues had many explanations for the association between crystal meth abuse and these comorbid psychiatric illnesses, which were the etiology of crystal meth abuse and these psychiatric disorders is the same and crystal meth abuse may cause some psychiatric disorders or reveal a previously latent psychiatric disorder (Lin et al., 2004). Shrem and Halkitis had another opinion; as they explained this association by that continuous stimulation of the central nervous system can induce negative psychological states such as anxiety, depression, confusion and aggression (Shrem and Halkitis, 2008).

The present study revealed that more than two-thirds of the participants had moderate impairment of the cognitive function, this result is consistent with previous studies that reported an association between crystal meth abuse and significant mental health disorders (Rezaei; 2017, Fast et al.; 2014, Russell et al; 2008). This may be related to that chronic crystal meth abuse affects dopamine transporters, which affects negatively on motor and memory coordination. (Farnia et al., 2016).

Conclusion

Crystal meth abuse is more common in males; the critical age of its abuse was between 18 to 30 years old. It is considered as a major risk factor of violence, aggressive behavior, anxiety, depression and cognitive impairment. We should pay attention towards the prevention of crystal meth abuse, early detection and proper management of its abuse.

Recommendations

Early management and proper rehabilitation of crystal meth dependence is an important step in decreasing the rate of aggression and crimes in the community.

Developing substance abuse prevention program is of prime importance in protecting the community from drawbacks of substance abuse.

Future large-scale studies are recommended to detect the precise incidences.

Limitations

Number of study participants is relatively small; the collected data were self-reports which may be affected memory failure.

Sample bias of shabu abusers who did attend Ismailia mental health clinic.

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Conflicts of Interest

Authors declared that there is no conflict of interest regarding publication of the current research.

References

Aguilar JP and Sen S (2013): The culture of methamphetamine: reframing gay men's methamphetamine use. Journal of Human Behavior on Social Environment, 23:370–382.

Al-Issa I, Al Zubaidi A and Bakal D (2000): Beck Anxiety Inventory symptoms in Arabic college students. Arabic Journal of Psychiatry, 11:41-47.

Amin D, Elnagdi S and Amer S (2019): Drug Abuse in Zagazig University Students, Egypt: Cross Sectional Study. Occupational Diseases and Environmental Medicine, 7:37-49.

Assaf AA, Abd El-Hay MA, Eissa MA and Abohammar SD (2018): Assessment of aggressive behavior among preparatory school children in Tanta City. Tanta Medical Journal, 46:29–37.

Ba´cskai E, Czobor P and Gerevich J (2012): Trait aggression, depression and suicidal behavior in drug dependent patients with and without ADHD symptoms. Psychiatry Research, 200:719–723.

Baker A, Lee NK, Claire M et al. (2005): Brief cognitive behavioural interventions for regular amphetamine users: a step in the right direction. Addiction,100(3):367-78. doi: 10.1111/j.1360-0443.2005.01002. x. PMID: 15733250.

Beck AT, Steer RA and Garbin MG (1988): Psychometric properties of the Beck Depression Inventory: twenty-five years of evaluation. Clinical Psychology Review, 8:77–10016.

Chukwujekwu DC and Stanley PC (2008): The Modified Overt Aggression Scale: how valid in this environment?. Nigerian Journal of Medicine, 17 (2); 153-5.

Coccaro EF, Harvey PD, Kupsaw-Lawrence E et al. (1991): Development of neuro-pharmacologically based behavioral assessments of impulsive aggressive behavior. Journal of Neuropsychiatry and Clinical Neuroscience, 3, S44–S51.

Cohen JB, Greenberg R, Uri J, Halpin M et al. (2007): Women with methamphetamine dependence: research on etiology and treatment. Journal of Psychoactive Drugs, 39 (suppl 4):347–351. doi: 10.1080/02791072.2007.10399896. PMID: 18284101.

Copeland AL and Sorensen JL (2001): Differences between methamphetamine users and cocaine users in treatment. Drug and Alcohol Dependence, 62 (1):91–95

Degenhardt L and Topp L (2003): Crystal meth' use among polydrug users in Sydney's dance party subculture: characteristics, use patterns and associated harms. International Journal of Drug Policy, 14(1):17-24.

Endicott J, Tracy K, Burt D, et al. (2002): A novel approach to assess inter-rater reliability in the use of the Overt Aggression Scale-Modified. Journal of Psychiatry Research, 112:153–159.

Farnia V, Shakeri J, Tatari F, et al. (2016): Demographic and mental history-related data predicted

occurrence of psychosis in methamphetamine users. Psychiatry Research, 240:431–434.

Farrell M, Marsden J, Ali R and Ling W (2002): Methamphetamine: drug use and psychoses become a major public health issue in the Asia Pacific region. Addiction, 97 (7): 771-772.

Fast D, Kerr T, Wood E and Small W (2014): The multiple truths about crystal meth among young people entrenched in an urban drug scene: A longitudinal ethnographic investigation. Social Science & Medicine, 110: 41- 48.

Feldkamp CS (2010): Immunological reactions. In: Kaplan LA, Pesce AJ (eds) Clinical chemistry: theory, analysis, and correlation. Mosby, St. Louis, pp 151–179

Folstein, Marshal F, Susan E, et al. (1975): "Mini-mental state": a practical method for grading the cognitive state of patients for the clinician. Journal of psychiatric research, 12(3): 189-198.

Foulds JA, Boden JM, McKetin R et al. (2020): Methamphetamine use and violence: Findings from a longitudinal birth cohort. Drug and alcohol dependence, 207:107826.

Gerra G, Zaimovic A, Raggi MA, et al. (2007): Experimentally induced aggressiveness in heroin-dependent patients treated with buprenorphine: comparison of patients receiving methadone and healthy subjects. Psychiatry Research, 149:201-213.

Gizzi MC and Gerkin P (2010): Methamphetamine use and criminal behavior. International Journal of Offender Therapy and Comparative Criminology, 54(6), 915–936. https://doi.org/10.1177/0306624X09351825

Hamdi E, Gawad T, Khoweiled A, Sidrak AE, Amer D and Mamdouh R (2013): Lifetime Prevalence of Alcohol and Substance Use in Egypt: A Community Survey. Substance Abuse, 34:97-104. https://doi.org/10.1080/08897077.2012.677752"10.1080

Hamdi E, Sabry N, Sedrak A, et al. (2016): Sociodemographic Indicators for Substance Use and Abuse in Egypt. Journal of Addiction Prevention, 4(1):8.

Hoaken PN and Stuart SH (2003): Drugs of abuse and the elicitation of human aggressive behavior. Addictive Behaviors, 28:1533–1554.

Kim YT, Kwon DH, Chang Y (2011): Impairments of facial emotion recognition and theory of mind in methamphetamine abusers. Psychiatry Research, 186:80–84. https://doi.org/10.1016/j.psychres.2010.06.027

Lin S, Ball D, Cheng-Cheng Hsiao C, et al. (2004): Psychiatric comorbidity and gender differences of persons incarcerated for methamphetamine abuse in Taiwan. Psychiatry and Clinical Neurosciences, 58:206–212.

Liu Y, Hao B, Shi Y, et al. (2017): Violent offences of methamphetamine users and dilemmas of forensic psychiatric assessment. Forensic Sciences Research, 2:1, 11-17, DOI: 10.1080/20961790.2017.1287155

Martino SC, Collins RL and Ellickson PL (2004): Substance use and vulnerability to sexual and physical aggression: a longitudinal study of young adults. Violence and Victims, 19:521-540.

McKetin R, Lubman DI, Lee MN, et al. (2011): Major depression among methamphetamine users entering drug treatment programs. The Medical Journal of Australia, 195(3): S51-S55.

Moller KE, Lee KC, Kissack JC (2008): Urine drug screening: practical guide for clinicians. Mayo Clinic Proceedings, 83(1):66–76.

Reid LW, Elifson KW and Sterk CE (2007): Hug drug or thug drug? Ecstasy use and aggressive behavior. Violence and Victims, 22; 104–119.

Rezaei M (2017): Etiology of Changing Pattern of Drug Abuse from Opium to Methamphetamine in Substance Abuser Women: A Qualitative Study. Addictive Disorders & Their Treatment, 16(1):20-27. DOI: 10.1097/ADT.0000000000000092.

Ro´ zsa S, Sza´do´ czky E and Furedi J (2001): Characteristics of the Beck Depression ¨Inventory on a Hungarian sample (in Hungarian). Psychiatria Hungarica, 16,379–397.

Russell K, Dryden DM, Liang Y, et al. (2008): Risk factors for methamphetamine use in youth: a systematic review. BMC Pediatric, 8, 48. doi: 10.1186/1471-2431-8-48. PMID: 18957076; PMCID: PMC2588572.

Sekine Y, Ouchi Y, Takei N, et al. (2006): Brain serotonin transporter density and aggression in abstinent methamphetamine abusers. Archives of General Psychiatry, 63:90–100.

Shrem MT and Halkitis PN (2008): Methamphetamine Abuse in the United States: Contextual, Psychological and Sociological Considerations, Journal of Health Psychology, 13(5):669–679. DOI: 10.1177/1359105307082461.

Singh D, Narayanan S, Harinderan K, et al. (2021): The relationship between amphetamine-type stimulant (ATS) use and violent crime in Penang, Malaysia: findings from a preliminary study. Drugs: Education, Prevention and Policy, 28:4, 357-366. DOI: 10.1080/09687637.2020.1833836

Stuart GL, Temple JR, Follansbee KW, et al. (2008): The role of drug use in a conceptual model of intimate partner violence in men and women arrested for domestic violence. Psychology of Addictive Behaviors, 22, 12–24.

United Nations Office on Drugs and Crime Vienna (2013): World Drug Report. United Nations, New York, NY. https://www.unodc.org/ unodc/ secured/ wdr/ wdr2013/ World_ Drug_ Report_2013.

Watt MH, Meade CS, Kimani S, et al., (2014): The impact of methamphetamine (tik) on a peri-urban community in Cape Town, South Africa. International Journal of Drug Policy, 25(2):219–225. https://doi.org/10. 1016/j.drugpo.2013.10.007

World Drug Report, United Nations Office on drugs and crime (2017): http://www.unodc.org/unodc/ en/ frontpage/ 2017/June/world-drug-report-2017"/

Yassa HA and Badea ST (2019): Patterns of drug abuse in Upper Egypt: cause or result of violence?. Egyptian Journal of Forensic Science, 9:14. https://doi.org/10.1186/s41935-019-0117-7"10.

Wu AHB (2001): Urine adulteration before testing for drugs of abuse. In: Shaw LC, Kwong TC, Rosano TG, Orsolak PJ, Wolf BA, Magnani B (eds). The clinical toxicology laboratory: contemporary practice of poisoning evaluation. American Association for Clinical Chemistry, Inc., Washington, DC, pp 157–171

إدمان كريستال ميثامفيتامين بين المرضى المترددين على عيادة الصحة النفسية بالإسماعيلية: السلوك العدواني والاضطرابات النفسية المصاحبة

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الملخص العربي

المقدمة: يعد الادمان من أخطر المشاكل الصحية التي انتشرت على مستوى العالم. حيث يمثل مشكلة صحية متفاقمة فى مصركمثيلاتها من الدول النامية. ويعد إدمان الميثامفيتامين من أخطر المشكلات الصحية الحالية حيث إنه يسبب الإدمان بدرجة كبيرة كما ووجد ارتباط وثيق بين ادمانه و السلوك العدوانى الشديد و جرائم العنف. وقد لوحظ في السنوات القليلة الماضية أن هناك زيادة في معدل تعاطي الميثامفيتامين (الشابو) في السوق المصري.

هدف الدراسة: وصف الخصائص السريرية لتعاطي الميثامفيتامين (الشابو) للكشف عن ارتباطه بالعدوانية والاضطرابات النفسية.

طريقة البحث: دراسة وصفية أجريت على متعاطي الميتامفيتامين بين المرضى الذين يترددون على عيادة الصحة النفسية بالإسماعيلية. حيث تم تقييمهم سريريًا ونفسيًا من قبل طبيب نفسي متخصص لتشخيص السلوك العدواني والضعف الإدراكي واضطرابات الصحة العقلية.

النتائج: تم إجراء الدراسة على ٨٢ من متعاطي الميثامفيتامين. وجد أن معظم المشاركين كانوا من الذكورووجد أن متوسط الأعمارهو ٢٧,٤ عاما .ووجد أن معظم المشاركين عانوا من الصداع و والتنميل والوخز . و قد أوضحت الدراسة أن حوالي نصف المجموعة تحت الدراسة كانت لديهم درجة شديدة من العدوانية كما أن أكثر من نصف المشاركين يعانون من اكتئاب حاد ، و أكثر من ثلاثة أرباع المشاركين في الدراسة يعانون من قلق معتدل وشديد.

الخلاصة والتوصيات: يعد تعاطي الميثامفيتامين عامل خطر رئيسي للعدوان/ العنف والاكتئاب والقلق والضعف الإدراكي. لذلك يجب أن نعيرالانتباه إلى الاكتشاف المبكر والعلاج المناسب لتعاطي الميثامفيتامين .

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