

Methamphetamine Use and its Associated Psycho Socio/Economic Impact: The Need for Drug Education

**Dr, Patrick E. Eluu¹, Dr, Iloke Chijioke Vitalus², Beth Nnenne Oluka³, Michael J. Anyaeru⁴,
Mgbeodichinma Daniel Onyia⁴, Dr, Christian O. Aleke^{4*}**

¹Department of Arts and Social Science Education, Ebonyi State University, Abakaliki¹²

²Department of Community Medicine, Faculty of Clinical Medicine, Alex Ekwueme Federal

³Department of Special Education Ebonyi State University, Abakaliki, Nigeria

⁴Department of Human Kinetics and Health Education, Ebonyi State University, Nigeria

ABSTRACT

Methamphetamine (MA) is a powerful and addictive stimulant that affects the central nervous system. MA use/abuse among adolescents and adults has become a significant social and public health concern globally. However, despite the increased knowledge and awareness of methamphetamine use among the population, research is still sparse on the psycho social impact of MA use. This paper examines the methamphetamine use/abuse and its associated psycho social/economic impact among adolescents and adults in Nigeria. The paper focused on methamphetamine use among adolescents/adults, the psycho social/economic impact and the role of health education intervention. Based on the review, the paper recommended among others that Government through its policies should ensure that jobs are created, social services are rendered, and above all, its policies should be feasible and capable of implementation. Moreover, individuals, families, communities, and the entire society should ensure that moral values are inculcated in the youths. This will help governments in the fight against the menace. Further, the Non Governmental Organizations (NGOs) and Community Based Organizations (CBOs) should encourage the sensitization campaigns against drug abuse/abuse among adolescents and adult as well as engage them in the rehabilitation programs.

Keywords: Community Based Organizations, Psycho Socio, Economic Impact.

1. INTRODUCTION

Methamphetamine (MA) use and abuse is seen as major public health threat and concern globally (Buck & Siegel, 2015). Methamphetamine is a highly addictive and one of the powerful central nervous system (CNS) stimulants (Obande-Ogbuinya, et al. 2024). In recent years, methamphetamine availability and methamphetamine-related harms have been increasing affecting all ages especially adolescents and adults globally particularly in Nigeria (Obande-Ogbuinya et al. 2024; Yasaei and Saadabadi, 2025).

Methamphetamine also known as ice or crystal meth and popularly known as 'Mkpuru Mmiri' in the southeastern part of Nigeria is a highly addictive psychostimulant drug similar to amphetamine (Obande-Ogbuinya et al. 2024; Olatunji et al. 2025). MA use is associated with dependence on long-term use, leaving individuals susceptible to substance use disorders (SUD) (Abbass et al. 2024; Obande-Ogbuinya et al. 2024; Olatunji et al. 2025).

MA use/abuse is increasing not only in high-income countries but also in developing and low-income regions, especially in Nigeria (Elrassas, et al. 2025). Studies indicate that MA use among adolescents is related to a higher prevalence of mental health disorders such as depression, anxiety, post-traumatic stress disorder (PTSD), attention-deficit hyperactivity disorder (ADHD), and conduct disorders compared to their non-using peers (Elrassas, et al. 2025). Additionally, MA use is linked to other psychosocial factors, such as strained family relationships, peer pressure, unemployment and exposure to violence and trauma (Obande-Ogbuinya et al. 2024; Elrassas, et al. 2025).

MA is a designer drug often made in illegal labs from inexpensive chemicals found in drugs, such as ephedrine and pseudoephedrine; it is sold in the form of powder, capsule or pressed tablet, and pill in Nigeria (Chinedum, 2020). It is a man-made stimulant that has been around for years now. During World War II, soldiers were given crystal meth to keep them awake and confident enough to fight. The effects of this substance are not exact, as different users have distinct episodes in relation to the substance (Nutt, King and Phillips, 2014). MA is a hard drug of addictions thus, users of MA (Mkpurummiri) especially adolescents and youths walks stark-naked in the streets without shame and some have been linked to unthinkable behaviours “Oedipus complex” like making sexual remarks to their parents or killing their parents, siblings, girlfriend, boyfriend, or their houses being burnt down (Tejiram et al. 2022; Obande-Ogbuinya et al. 2024) The mentioned ugly menace arising from MA use underscores the need for research on methamphetamine use and its associated psycho socio/economic impact in Nigeria

Nigeria was projected to have up to 20 million drug users by 2030 with consequent negative impacts on public health and public security if nothing concrete is done to change the trend (Mbanuzuru et al. 2022). The Nigerian Drug Law Enforcement Agency (NDLEA) boss described drug problem as a ‘raging epidemic.’ The National drug use survey (NDUS) in 2018 and 2019, revealed that there were 14.3 million drug users in Nigeria, with close to 3 million suffered from drug use disorders. The survey showed that about 40% of Nigerian youths aged 18 and 35 years are involved in substance use disorder (Mbanuzuru 2022). The general prevalence of addictive drug use was 14.4%, while the global prevalence was 5%. About 11 million were misusing cannabis and other illicit drugs in Nigeria (a third of which are regular users and require drug counseling) (UNODC-Nigeria, 2021). Other common drugs/substance of use include alcohol, cigarettes (tobacco), marijuana, inhalants, tramadol, codeine containing cough syrup and cocaine (Raji et al., 2013). It has been shown that psychoactive substance use has direct or indirect link with mental health disorders, physical health and socioeconomic problems (Raji et al., 2013; Bhatt et al., 2016; Mbanuzuru et al. 2022).

This review aimed to explore methamphetamine (MA) use/abuse and its associated psycho social/economic impact among adolescents and adults in Nigeria. MA is a drug with a high potential for abuse, and the use potentially leading to severe psychological or physical dependence (Bhatt et al., 2016; Dumbil et al. 2022). The National Drug Law Enforcement Agency (NDLEA) described it as a very addictive stimulant that renders the user hyperactive and prone to destructive tendencies which at the extreme do not exclude suicide or homicide at the slightest provocation and without a feeling of remorse (Obande-Ogbuinya et al. 2024). According to Stefan (2015) other factors pushing people towards drug consume are disillusion, depression and the lack of a goal in life, economical problems, unemployment and the parents' negative example. Those who relate with difficulty to other people apply drugs to face social situations, as they believe drugs make them more secure, funny, pleasant, sexy and clever. Others consider using the drugs thus, it is easier to take refuge in drugs than facing their responsibilities with reality (Olatunji et al. 2025).

Several studies have grouped impact of methamphetamine use/abuse to individuals, communities and society. This includes psychological, physical, educational and socio-economic impact. However, the current study focused on psycho social and economic impact of MA use. These shall be discussed in the succeeding subheadings:

Methamphetamine (MA) and its Effect



Shards of pure methamphetamine hydrochloride, also known as crystal meth



Meth mouth

“Meth mouth” or “crank decay” is the severe dental caries effect associated with the use of methamphetamine. Methamphetamine use may also cause other negative physical and orofacial conditions including bruxism, grinding/clenching, disorders of the temporomandibular joint, myofacial pain, and trismus.

2. PSYCHO- SOCIAL IMPACT OF METHAMPHETAMINE USE

Psycho-Social impact of methamphetamine use, Methamphetamine being a highly addictive central nervous system stimulant has serious harmful effect on health of individuals using the substance (Dumbili, et al. 2024). The increasing MA use and rise in level of its dependence have consequentially led to upsurge of psychiatric symptoms and disorders (Mbanuzuru et al. 2022). Its health problems can arise at any stage of use be it in the acute or chronic use, binge use and withdrawal stage. The preference from its powder to a more purified crystalline form of use is being associated to severity of psychiatric complications (Mbanuzuru et al. 2022). Several psychiatric symptoms especially paranoia, hallucinations, suicidality, anxiety, irritability, distractibility, motor hyperactivity and depressive symptoms have been reported in several studies among individuals users of methamphetamine (MA) (Mbanuzuru et al. 2022; Dumbil et al. 2022; Obande-Ogbuinya et al. 2024).

More so, euphoric effect, alertness, insomnia, increase energy level, loss of appetite, talkativeness and violent behaviors are commonly seen in acute intoxicated stage, and in the withdrawal period, the individual may become moody, somnolence, intensively craving for the drug, and irritable as well (Mbanuzuru et al. 2022; Dumbil et al. 2022; Obande-Ogbuinya et al. 2024). It is further reported that approximately, one in three users of MA is at risk of developing mental health problem (Mbanuzuru et al. 2022; Olatunji et al. 2025). The physical aggression committed under the effect of methamphetamine use far supersedes that reported among non-drug related mental disorders. In fact, the quantity of methamphetamine use, psychotic symptoms and cognitive dysfunction associated with methamphetamine use are the major determinants for violence (Mbanuzuru et al. 2022).

Research has also documented that while under the influence of MA, an individual could hallucinate, experience great anxiety, be irritable, have thoughts of grandeur and be euphoric (Mbanuzuru et al. 2022; Ogbuinya et al. 2024). The excitement is at its peak and the fatigue disappears. The person who takes this drug may sweat, have palpitations, have insomnia, have nausea, tremors, and chest pain, be confused, have paranoia, or be in a state of panic. Depending on the composition of the drug, the repercussions can vary widely (Riviello, 2017). Due to the intensity of the effects of MA, people who take it can experience general exhaustion, fall into a depressive state which leads to suicidal thoughts and become aggressive. Methamphetamine, like other designer drugs, can permanently damage the brain. The risks of developing psychological dependence are greater than with amphetamines, because this drug is more powerful. Addiction from MA is even faster when the drug is taken in the form of crystal meth. In addition to the public health problems caused by addiction and other health consequences directly related to its use, methamphetamine is sold and purchased in an unregulated market. This means that it may contain adulterants and contaminants that may be harmful to health (Schep, 2016).

3. ECONOMIC IMPACTS OF METHAMPHETAMINE USE

The economic effect of MA includes loss of potential manpower, low productivity, and creation of an unfavourable environment for investors which of course affects the Gross National Income (GNI) of Nigeria (Dumbili, et al. 2024). The Social effect looks at issues dealing with increasing criminal activities associated with drug abuse like robbery, burglary, rape, vandalisation of public properties, increasing rate of HIV/AIDS, the congestion of penitentiaries where the government spends more in the maintenance of prisoners, and of course the growing numbers of destitute which our social welfare administration system cannot carter for thereby depleting government's budget (Dumbili, et al. 2024).

Again, the drug trafficking is the largest illegal business in the world, making about 8% of the international trade, translated in about \$400 billion annually. This trade enriches the drug barons, gangsters, corrupt police forces, bribe politicians and finance terrorism, and at a world level, police manages to confiscate just 10-15 % of the trafficked drugs. Drugs can corrode a whole society, hitting in all that a normal human society requires: stable families, healthy work hand, trusty governments, honest police, and law respecting citizens (Dumbili, et al. 2024).

According to Stefan (2015), drugs are also connected with disunited families. Addicted parents can seldom offer a stable family life to their children. The link parent-child may even be destroyed. Drug addicted parents often get indebted, steal from friends or family or lose their job. Many of these children run away from home living on the streets and the probability of them becoming addicts in their turn is quite high.

The drug consume can lead to physical abuse on the partner and children. Methamphetamine, especially when mixed with alcohol, can induce a violent behaviour even on persons that are normally calm and quiet. 17% of the drug consumers become aggressive after taking the drug. 73 % of the children beaten to death had drug addicted parents.

The economic impact of drug abuse on businesses whose employees abuse drugs can be significant. While many drug abusers are unable to attain or hold full-time employment, those who do work put others at risk, particularly when employed in positions where even a minor degree of impairment could be catastrophic; airline pilots, air traffic controllers, train operators, and bus drivers. Economically, businesses often are affected because employees who abuse drugs sometimes steal cash or supplies, equipment, and products that can be sold to get money to buy drugs. Moreover, absenteeism, lost productivity, and increased use of medical and insurance benefits by employees who abuse drugs affect a business financially. The economic consequences of drug abuse severely burden federal, state, and local government resources and, ultimately, the taxpayer. This effect is most evident with methamphetamine (Stephenson et al. 2023; Dumbili, et al. 2024).

Methamphetamine users often require extensive medical treatment; some abuse, neglect, and abandon their children, adding to social services costs; some also commit a host of other crimes including domestic violence, assault, burglary, and identity theft (Dumbili, et al. 2024).

4. THE NEED FOR DRUG EDUCATION

Drug education refers to the things we learn about drugs.

1. Drug education creates awareness of the need to use drug wisely.
2. Drug education is a way of helping people to show concern for others.
3. Drug education helps us to know⁷ the rules and regulations concerning the production and use of drugs
4. Drug education helps us to know that drugs are capable of causing danger when they are not used properly
5. It helps us to know dangerous drugs that people should not touch or carrying in their bodies
6. It helps us to know when drugs can expire

5. TREATMENT CONSIDERATIONS

The multiple effects of Methamphetamine abuse clearly suggest that treatment models be holistic in their approach and consider the interplay between psychological, biological, and social factors. As of yet, studies from community-based, clinical, and research settings have not found any single treatment for Methamphetamine addiction to be completely effective. Furthermore, although certain medications show signs of reducing the "high" associated with Methamphetamine and reducing cravings during withdrawal, pharmaceutical therapies remain relatively elusive (NIDA, 2012). Several treatment approaches have been tried with varying degrees of success, including cognitive

behavioral therapy, motivational interviewing, and contingency management, 12-step/12-step facilitation, aversion therapy, and psycho-educational approaches.

In general, treatment models that are directed by social-cognitive theory and principles of cognitive behavioral therapy (CBT), such as the matrix model (Anglin & Rawson, 2010), appear to be the most effective in treating MA abuse (NIDA. 2012). Central to this theoretical approach is the attempt to increase knowledge, motivation, and behavioral skills in an attempt to reduce Methamphetamine use and provide mechanisms that address the link between Methamphetamine use and faulty decision making in social situations while under the influence. Thus, information alone is insufficient for behavior change; motivation and skills building must also be included (Tsamlag, Wang, Shen 2020). Therefore, to accomplish this, a program based on CBT and informed by the principles of motivational interviewing serves to both increase individuals.

7. CONCLUSION

Drug abuse is still a menace and has grown to become global subculture whose effects is disastrous and cuts across every society, creed, or race. However, no individual is born an abuser, but the multifarious human activities have through learning, interaction, and curiosity made man to develop this habit. It is empirical that drug abuse is more common amongst the youth especially in Nigeria. The habit develops as an attempt for instance to justify a curiosity in the daily interactions as man is a social animal. To the individual, its effects can be physiological' and psychological, which gradually penetrates the society and affects all productive endeavors both socially and economically.

Methamphetamine should be avoided irrespective of how it can make a depressed person to feel better. This drug only comes with temporary benefits and permanent side effects which lead to death. On what the drug does to the body, it causes high temperature and possible death, makes one unable to sleep and violent; the user ages fast and looks sick with lots of pimples.

As a stimulant, it has powerful excited effects, similar to those of cocaine. Meth typically keeps users awake, depriving them of sleep. Its use and abuse also carry acute health risks including high blood pressure and cardiovascular-related illness. Users also exhibit anti-social behaviours. Sometimes, excessive use leads to damaged gum and teeth (mouth ulcers), commonly called "meth mouth."

RECOMMENDATIONS

1. Government should ensure that through its policies, jobs are created, social services are rendered, and above all, its policies should be feasible and capable of implementation.
2. Individuals, families, communities, and the entire society should ensure that moral values are inculcated in the youths, by joining the government's fight against the menace.
3. Non Governmental Organizations (NGOs) and Community Based Organizations (CBOs) should encourage the sensitization campaigns against drug abuse as well as engage in rehabilitation programs.
4. Educational Institutions at all levels whether public or private should organize workshops, lectures to enlighten the people on the dangers of drugs and substance abuse.

REFERENCES

- Abbass M, Al-Hemiary N, Sahib HB. (2024). The impact of methamphetamine on psychosocial variables in patients from Iraq. *Front Psychiatry*. May 8;15:1376636. doi: 10.3389/fpsy.2024.1376636. PMID: 38779547; PMCID: PMC11109410.
- Bhatt M, Zielinski L, Baker-Beal L, Bhatnagar N, Mouravska N, Laplante P. Efficacy and safety of psychostimulants for amphetamine and methamphetamine use disorders: A systematic review and meta-analysis. *Systematic Reviews*. 2016;5(1):189. <https://doi.org/10.1186/s13643-016-0370-x>
- Buck, J.M and Siegel, J.A. (2015). The effects of adolescent methamphetamine exposure. *Front. Neurosci*. 9:151. doi: 10.3389/fnins.2015.00151

Chinedum, A. (2020). Mkpiummiri and its effect. Onitsha: Philip publishers

Dumbili, E and Ebuanyi, I, (2022). Factors Influencing Methamphetamine (Mkpulummiri) Use in Eastern Nigeria . Available at SSRN: <https://ssrn.com/abstract=4020039> or <http://dx.doi.org/10.2139/ssrn.4020039>

Dumbili, E. W., Ezekwe, E. C., & Ebuanyi, I. D. (2024). Motivations for Methamphetamine (Mkpurummiri) Use and Consequences Among Nigerian Users. *Journal of Drug Issues*, 0(0). <https://doi.org/10.1177/00220426241281297>

Elrassas, H.H., Hassan, Y.AE.M., Abdelqader, M.A.E. *et al.* (2025). Methamphetamine use and psychiatric comorbidities among Egyptian adolescents: a cross-sectional study. *Middle East Curr Psychiatry* **32**, 31. <https://doi.org/10.1186/s43045-025-00522-0>

Mbanuzuru, A.V., Oriji, S.O., Udigwe, I., Onu J.U., Ifeadike, C. and Ibeh, C.C. (2022). Dangerous trend of methamphetamine use among youths in south-eastern Nigeria: A mini-review *International Journal of Research in Psychiatry* 2022; 2(1): 32-36. DOI: <https://doi.org/10.22271/27891623.2022.v2.i1a.26>

Nora, D. and Volkow, M.D. (2012). What is Methamphetamine? National Institute on Drug Abuse, Research Report Series. NIH Publication Number 13-4210

Nutt, D. J, King L.A, & Phillips, L.D (2014). Drug harms in the UK: a multicriteria decision analysis. *Journal of Pharmacological* 376 (9752): 1558-65.

Obande-Ogbuinya, N.E., Aleke, C.O., Omaka-Amari, L.N. *et al.* (2024). Prevalence of Methamphetamine (Mkpurummiri) use in south east Nigeria: a community-based cross-sectional study. *BMC Public Health* **24**, 2436 (2024). <https://doi.org/10.1186/s12889-024-19921-9>

Olatunji, E., Bally, D.J., Oke, O., Tumenta, T., Umesi, U.N., Vyas, V., Nkemjika, S. (2025). Methamphetamine use among substance use disorder treatment populations, *Journal of Medicine, Surgery, and Public Health*; 6, 100192, <https://doi.org/10.1016/j.glmedi.2025.100192>.

Raji SO, Inogbo CF, Oriji S, James BO. (2013). Seizures in a young adult Nigerian male abusing codeine containing cough syrup. *Nigerian Journal of Basic and Clinical Sciences*;10(2):98. <https://doi.org/10.4103/0331-8540.122773>

Riviello, R.J. (2017). Manual of forensic emergency medicine: a guide for clinicians. Sudbury, Mass.: Jones and Bartlett Publishers.

Schep LJ, (2016). The clinical toxicology of metamfetamine. *Clinical Toxicology*. 48 (7): 675- 694.

Stefan, O. (2015). Drugs abuse and the music world. London: Nelson and Brothers Inc.

Stephenson L, Van Den Heuvel C, Byard RW. (2023). Socioeconomic and psychosocial determinants of substance misuse - a national perspective. *Forensic Sci Med Pathol*. 2024 Dec;20(4):1499-1508. doi: 10.1007/s12024-023-00702-6. Epub Sep 8. PMID: 37682517; PMCID: PMC11790815.

Tejiram, S., Solomon, E.A., Sen, S., Greenhalgh, D.G., Palmieri, T.L., Romanowski, K.S. (2022). Does Socioeconomic Status or Methamphetamine Use Affect Discharge Opioid Requirements in Burn-Injured Patients? *J Burn Care Res*. May 17;43(3):534-540. doi: 10.1093/jbcr/irac009. PMID: 40129013; PMCID: PMC9113805.

Tsamlag, L., Wang, H., Shen, Q. *et al.* (2020). Applying the information–motivation–behavioral model to explore the influencing factors of self-management behavior among osteoporosis patients. *BMC Public Health* **20**, 198 (2020). <https://doi.org/10.1186/s12889-020-8292-x>

UNIDOC (2021) World Drug Report. United Nations Office on Drugs and Crime. World Drug Report (WDR). 2021 <https://www.unodc.org/unodc/en/data-and-analysis/wdr2021.htm>

***Correspondence:** E-mails: Christian.aleke2020@gmail.com