Digital Drugs and Their Implications on the Mental Health of School Students

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Abstract:

The scourge of drugs has become a real danger threatening individuals and societies, both poor and rich alike, in our current times. Due to the repercussions of this phenomenon on morals and public health, it leads to the emergence of deadly diseases and the dissolution of values and ethics in society. We note the terrible evolution that this serious social phenomenon is experiencing in its various types and manifestations, where today we talk about electronic or digital drugs, which have become a real danger to society in general and to our youth in particular.

This type is still unknown and is characterized by features that differ from other types of drugs, due to its association with the digital space and technology. This research paper aims to highlight the most important causes leading to the emergence of this problem, as well as its harms and dangers to the health of the addict.

Keywords: Digital Drugs; Implications; Mental Health; School Student

Introduction:

The internet and its contemporary applications have led to fundamental tangible changes in the features of human society, and in the essence and nature of interaction. E-mails have replaced written letters, thus individuals have left family and social gatherings in favor of chat rooms, and the entire world has become within the reach of anyone sitting in front of internet communication devices.

Digital drugs are just one of the phenomena created by the modern information revolution, which seeks to demoralize and destroy the basic foundations of society's construction, particularly teenagers and young people. Through tones, vibrations occur in brain cells to obstruct their movement and path in the society they live in.

Furthermore, digital drugs are a new type of drugs, and it is believed that their appearance began in Oklahoma City, United States, where the media spread news that a number of students showed symptoms of euphoria and drug use, despite not having taken any drugs, but rather listened to a type of sound waves, and sound drugs began to spread through media circulation. Subsequently, several commercial websites specialized in this type of drugs appeared, owned by

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some companies and working in cooperation with specialists to produce and promote them on their sites (Abu Al-Duh, 2016, p. 05).

Recently, a new type of drug known as digital drugs has widely spread, with addiction to sound tones, and opinions among jurists and specialists on the nature and type of these drugs vary between support and opposition due to their harms to the mental and physical health of the individual.

The problem of drug abuse occupies a large space in the interests of thinkers, social researchers, politicians, and those concerned with social control; due to its risks threatening the security of society and the value systems and ethical norms of social behavior, in addition to its multiple effects on the national economy's structure resulting from its spread due to absorbing the wealth and capabilities owned by individuals through behavior patterns prohibited by religions and laws. (Al-Asfar, 2004, p.07)

This virtual world has shown many good and beneficial practices that have facilitated human life, as well as many deviant and harmful practices. Therefore, this research paper aims to demonstrate the harms, implications, dangers, and negative aspects of digital drugs on human mental health. The practice of consuming digital drugs is one of the new deviant practices related to the Internet, which has spread among large groups of youth in some Western societies, to the extent that it has become a problem threatening the security of young people and their lives.

With the beginning of its entry into some Arab societies, albeit to a lesser extent so far, it becomes important and the duty of science to attempt to approach the nature of this practice, its origin, development, and the cultural dimensions associated with it. And what may result from it in terms of danger and harm to the security of our societies.

This is what this research paper will try to present through the following questions:

- What are the implications of digital drugs on the mental health of the individual user?

- What are the effects resulting from this addiction?

1. Defining Concepts:

1.1 Drugs

Linguistically: Derived from "khadr," which means to provide shade for a maiden in a corner of the house, "alkhadr" and "alkhadra" refer to darkness, with "alkhadra" indicating intense darkness. "Alkhader" means lazy, and "alkhadran" and "alkhadr" in the context of beverages and medicine signify a state of lethargy and weakness affecting the drinker, making them relaxed to the point of being unable to move. (Ibn Mandur, 1886, pp. 231-232)

In technical terms:

2.1 Digital Drugs:

More precisely, also referred to as "Binaural Beats," are a collection of sounds or tones believed to induce brain changes, causing a state of altered consciousness similar to the effect of real drug use, such as opium, cannabis, marijuana, etc. (Walsh, 2011, pp. 5-6)

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These are audio files containing monaural or binaural beats listened to by the user, making the brain reach a state of numbness akin to the effect of real drugs, at least as some claim. These audio files are designed to simulate hallucinations and euphoric states associated with drug use, by subconsciously affecting the mind. This effect is achieved through inaudible sound waves called "white noise" masked by simple rhythms to cover the annoyance of those waves. (Abdul Rahman, 2005, p. 05)

Digital drugs consist of audio files, sometimes accompanied by visual materials with shapes and colors that move and change according to a carefully engineered rate, designed to deceive the brain by broadcasting different frequency sound waves in a simple manner to each ear.

Since these sound waves are unfamiliar, the brain works to align the frequencies from both ears to reach a unified level, thereby becoming electrically unstable. Depending on the difference in brain electricity, a certain sensation similar to a drug-induced feeling or desired emotions such as euphoria is achieved. (Al-Majali, 2013, p. 87)

Some consider digital drugs as a type of loud music that affects the individual's mood, mimicking the effects of marijuana, hashish, cocaine, and other known drug types. Listened to through earphones or speakers, the brain combines the two signals, resulting in a third sound called "the beat on the ear." This state creates illusions in the listener, transporting them to a state of unconsciousness, possibly causing a loss of psychological and physical balance.

Thus, digital drugs are audio files containing monaural or binaural beats listened to by the user, inducing a state of numbness in the brain similar to the effect of real drugs, at least as some claim. These files are designed to simulate hallucinations and euphoria associated with drug use, affecting the mind subconsciously. This effect is achieved through sound waves inaudible to the ear, known as "white noise," covered by simple rhythms to mask the disturbance of those waves (Khaled Kadem Abu Douh, 2016, p. 7).

3.1 Mental Health:

Mental health is an important subject as it concerns both young and old alike. Due to its importance, definitions by researchers vary relatively based on each researcher's perspective and the nature of their study. There are two approaches to defining mental health, one negative and the other positive.

The negative approach views "mental health as the absence of symptoms of mental or psychological illness, a view predominately held by physicians. On the other hand, the positive approach believes it to be the individual's harmony with themselves and their society, the ability to face crises and difficulties, and the feeling of happiness and satisfaction" (Marzouk Ben Ahmad Abdul Mohsen Al-Omari, 2012, p. 38).

Abdul Salam Zahran sees it as "a relatively permanent state where the individual is psychologically (personally, emotionally, and socially, i.e., with themselves and their environment) harmonious, feels happy with themselves and others, capable of self-realization and exploiting their capabilities and potentials to the maximum extent possible, and able to face life's demands" (Abdul Salam Zahran, 2005, p. 09).

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Vikram Patel believes "good health is not just a healthy body, but a person should also enjoy mental and psychological health, thus capable of facing problems in life, feeling comfortable and at peace, and able to build good relationships with others" (Vikram Patel, 2008, p. 34).

Djaarir Salima views it as "a relatively permanent state where the individual is psychologically and socially harmonious with themselves and their environment, feels happy with themselves and others, capable of facing life's demands, achieving self-realization, and exploiting their capabilities and potentials to the maximum extent possible" (Djaarir Salima, 2017, p. 134).

From these definitions, it is difficult to choose a single, comprehensive definition over others, but mental health can be highlighted based on researchers' definitions as follows:

- Involves enjoying mental well-being and behavioral integrity, not just the absence or lack of psychological disease symptoms.

✓ A state of harmony among all personality aspects and with society.

✓ Characterized by relative stability.

✓ Feeling happy and satisfied, achieving self-realization, and exploiting capabilities and potentials to the maximum extent possible.

2. Types of Digital Drugs:

Digital drugs are distributed through the I-Doser application, which assigns a special sound mix to each narcotic tone, similar to traditional drugs, targeting a specific pattern of brain activity. The following types have been identified:

1.2 Crystal Myth:

This type of tone is calm and induces relaxation and tranquility, causing hallucinations and a sense of euphoria through the resurgence of painful memories. The tone is of a gentle stimulative nature that induces daydreaming and joy in the individual, with a short musical dose duration.

Promotion for this type includes offering free doses to new visitors to the site, aiming to create an impression that it does not affect the brain but instead induces a state of relaxation, encouraging users to try more dangerous varieties (Al-Khayoun, 2023, p. 11).

2.2 Heavy Meta:

If the right ear is exposed to a 325 Hz wave and the left to a 315 Hz wave, the brain processes both waves to form a new sound and wave of 10 Hz, the same wave produced by the brain during relaxation and meditation. Each type of sound wave and frequency targets a specific pattern of brain activity, depending on the exposure duration, conducive conditions, and sometimes visual elements to enhance brain stimulation (Mohammed Habash, 2014).

These differences in waves are divided into four categories according to their impact on the listener's brain, as follows:

- **Delta:** A difference of 0.5 – 4 Hz puts the brain into deep sleep.

- **Theta:** A difference of 4 – 8 Hz puts the brain into a state of drowsiness or early sleep.

- **Alpha:** A difference of 8 – 14 Hz puts the brain into a state of relaxation while maintaining alertness.

- **Beta:** A difference of 14 - 30 Hz puts the brain into a state of acute alertness and high concentration. For optimal alertness and activity, listening to tones of 130 Hz and 150 Hz is recommended. For complete relaxation, tones of 140 Hz and 145 Hz are preferred.

➢ **Note:**

When these tones are played through external speakers, the difference between frequencies disappears, and the brain perceives them as a single frequency. Therefore, it is essential to listen to these tones through earphones so they are distributed to both ears, and the frequency difference manifests in the brain (Mohammed Habash, 2014).

3. Reasons for Using Digital Drugs:

There are numerous and varied reasons for drug use and addiction, depending on the general and specific circumstances of the user, including but not limited to:

- Lack of religious and moral deterrents in the individual.

- The globalization of the rights system and the consideration of the information network as an open informational field, deemed a right under international agreements and laws, has led to the spread of this phenomenon under the guise of public freedom, exploited for promoting such drugs, which have not been effectively blocked or filtered due to the lack of awareness and self-immunity among teenagers and young people to avoid such sites, including those promoting pornography as well as audio files known as digital drugs.

- The feeling of emptiness due to the lack of parks, entertainment clubs, swimming pools, and sports clubs is one of the main reasons for isolation and drives the curiosity of teenagers and young people to listen to these audio files and music to feel euphoria and happiness, even if illusory.

- Travel and influence by foreigners, with all the temptations and places of amusement abroad, and the lack of supervision over places where digital drugs are consumed in closed rooms, contribute to the knowledge, use, and addiction to these drugs.

- Having ample money leads to a life of luxury and extravagance, trying all experiences to feel euphoria and comfort, especially if unsupervised, including experimenting with digital drugs (Yassin, 2016, p.596).

- Excessive daily use of technological means with a lack of parental awareness of the dangers of modern technology use, along with a low percentage of students trained in proper technology use. Some studies in Egypt showed that the percentage of those trained through schools reached 26.7%, and those relying on friends for technology education was 46.7%. Meanwhile, 47% learned harmful behaviors from technology use. The study also highlighted the reduced role of teachers in training students on ethical standards for safe technology use (Al-Muslimani, 2014, p.17).

• Social and family problems, where parental conflicts lead to instability in the family environment and a loss of ability among teenagers and young people, in addition to parents being too busy to raise their children properly.

• Easy access to websites promoting digital drugs without a deterrent policy for cybercrime, especially crimes involving privacy breaches and system interference, exacerbated by weak supervision and limited impact of laws and regulations aimed at protecting personal information and individuals from the side effects of digital drugs.

• The spread of false ideas about digital drugs being sources of joy and pleasure, which are baseless notions promoted by entities aiming to undermine society (Abdul Wahab, 2022, p.17).

4. How Digital Drugs Work:

The brain attempts to unify the frequencies in both the right and left ears to achieve a single level for the tone's frequency, leaving the brain in an unstable state in terms of the electrical signals it sends. This is where promoters of such drugs choose the type of effect they want to achieve. Listening to the varying sound frequencies between the ears for a duration of 15 minutes to half an hour suffices (Marlot, 2012).

These drugs are designed to simulate states of euphoria and hallucinations experienced with traditional drug use, by subconsciously affecting the mind through sound waves inaudible to the ear known as white noise with simple rhythms to mask the disturbance of those waves. Users looking to purchase can choose the type and dose of the musical drug from the available options on the website among MP3 files.

The addiction to this type of drugs is not prohibited by law, even though some doctors say its effects are similar to hallucinogenic drugs, leading to addiction. These drugs have become hugely popular among internet users, especially the youth, and many websites are filled with these types of drugs, trading them under various classifications like spiritual, sexual, hallucinogenic, happiness, anti-anxiety, pure drugs, and others (Abu Sari' Abd al-Rahman, 2017).

5. Effects of Digital Drugs:

Some studies have shown that some users of digital drugs have experienced increased depression rates after a period of use. These results were obtained after experiments were conducted on users when they listened to audio files or used "differing frequency tapping on the ears," leading to a decrease in short-term memory efficiency and rapid recall memory (Al-Bawaba website, 2014).

The audio files are created using special sound engineering technology and are composed on two levels: the first creates effects on the brain by beating certain tones on each ear with a level of sound varying in sound tones and frequency pitch, ultimately causing brain and mood changes, thereby having a negative impact on the brain.

This makes the user feel euphoric and happy, followed by mental wandering due to the detachment of the user's cells from reality and decreased concentration. Repeating this state can lead to the user entering into convulsions, losing control, and irritation of the nervous system (Abd al-Majid, 2017, p. 20).

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The impact of digital drugs on health can be summarized as follows:

- Depression, deterioration in mental capabilities, and auditory system dysfunction.

- False euphoria and decreased efficiency due to detachment from reality.

➢ **Socially, their impact includes:**
- Easy access via the internet for all ages, and their low cost.
- The lack of clear physical symptoms in users of digital drugs compared to traditional ones.
- The lack of a deterrent policy, laws, and legislation to combat this type of audio poison.

➢ **Economically, their harms include:**

- Obstacle to economic development and progress.

- Wasting wealth due to the consequences of their use, in addition to the money spent on purchasing them (Abdul Wahab, 2022, p.19).

➢ **As for the individual harms to the addict, they include:**

- Negative impact on the functioning of nerves and the brain.

- Occurrence of convulsions and tremors due to prolonged relaxation.

- The addict's tendency towards isolation and loneliness.

- Mental wandering.

- Loss of concentration and attention.

- Severe depression in the addict.

- Dysfunction in the addict's auditory system (Al-Maliki, 2022, p. 205).

6. **Risks of Digital Drugs on the Nervous System:**

To date, there is no scientific evidence proving that digital drugs can cause chemical harm, but they cause addiction from a psychological perspective, which is more lethal. Some of the risks include:

Loud music has a negative effect on the brain's electricity level, leading to mental wandering along with euphoria and comfort for the user, which may seem positive but is actually dangerous as it reduces concentration and detaches from reality, potentially leading to brain wave alterations and convulsions.

Dr. Mohamed Ahmed Owaida, a professor of psychiatry at the Faculty of Medicine, Al-Azhar University, states that digital drugs induce a "holotropic" state in individuals, allowing the listener to enter a pre-conscious phase, a middle stage between consciousness and unconsciousness, where one can recall painful memories and experiences that cannot be remembered under normal circumstances.

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This state could revert the individual to moments of their birth, a therapeutic method that should be supervised by a doctor to determine the type of music and the listening duration because its impact can be devastating. It has the same effect as hallucinogenic drugs, leading to addiction, and varies from one young person to another, especially since some people may have undiagnosed epilepsy and can experience convulsions when listening to this music.

American expert in neurological and psychological effects, Bridget Forge, argues that digital drugs rely on ear-tapping technology, stimulating the brain to generate slow waves like "alpha" waves associated with relaxation and fast waves like "beta" waves associated with alertness and concentration. This makes the recipient feel a state of unconsciousness accompanied by hallucinations and loss of physical, psychological, and mental balance. Forge believes that excessive use of stimulating sounds can lead to long-term sleep disorders or anxiety, similar to the use of stimulants used in some psychiatric treatments (Abu Sari', 2010, p. 07).

7.   Conclusion:

In light of these realistic findings about the phenomenon, unity, cooperation, exchange of experiences, and the development of education systems to match rapid advancements, as well as enhancing the role of families in awareness and proper social upbringing, are essential means to combat the dangers arising from the consumption of digital drugs, from which no human society can escape amidst the tremendous openness of electronic spaces or virtual worlds, their main habitats.

Incorporating religion, schools, and families into the battle against drug trafficking in general and digital drugs in particular has become imperative and necessary due to the increasing dangers to societies. These institutions possess mechanisms to prevent disintegration and collapse, and their social structures embody solidity, durability, and the ability to ensure stability and cohesion on both individual and societal levels.

Amidst this rapid change and unlimited openness of various electronic spaces imposed by the revolution in modern communication technology, which transcends time and space, producing new and unfamiliar phenomena like digital drugs, searching for new alternatives to secure against sudden risks becomes more than necessary. Strengthening and activating ethical sources is one of the sought-after alternatives amidst the individualistic consumer tendencies imposed by post-modernity.

8.   Suggestions:

•   Intensify awareness campaigns, especially for young teenagers within schools, about the optimal use of modern technologies, their harms resulting from misuse, in addition to utilizing official satellite channels and consulting experts in computer science, higher education in pedagogy, clinical psychology, and sociology.

•   Unify efforts by official institutions and in cooperation with civil society organizations to sponsor initiatives around holding seminars and workshops for students, providing teenagers with the culture of conscious communication with modern means of communication and emphasizing the principles of safe internet use.

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- Filter social media by state agencies, especially electronic monitoring of sites that offer these types of drugs or others, by blocking them permanently as they pose a danger, thus fighting them on a local level and then working within an international network for combat.

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