

Research Article

Nyaope Addiction Among South African Adolescents and Young People: A Theoretical Perspective

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Abstract

Background: The use of nyaope among South African adolescents and young people is alarming. Users continue to use this drug despite its long-term adverse effects on their mental health and social life.

Purpose: This paper aimed to provide background and context for why South African adolescents and young people are addicted to nyaope from the perspective of psychological theories of addiction.

Methodology: The paper adopted a thematic literature review and sampled 10 journal articles published in English in peer-reviewed journals that followed a standard of article writing and reporting. These articles were inductively analysed.

Results: The articles sampled in this paper focused on the implication of nyaope on users' mental health and social life. The themes that emerged from the reviewed articles suggest that factors that contribute to nyaope addiction among South African adolescents and young people are experimentation, withdrawal symptoms, negative social circumstances, and mental disorders.

Conclusion: Nyaope addiction is a behaviour that is learned through natural stimulations, physiological reward systems, negative environments, and negative cultural norms. These factors put individuals who have not used nyaope in the position to believe it is necessary to start using this drug, which appears pleasant and less dangerous for first-time users.

Keywords: Nyaope; Drug addiction; Psychological addiction theories adolescents; Young people

Introduction

According to the Republic of South Africa's (RSA's) National Drug Master Plan (NDMP) 2019-2024 of 2019, the use of nyaope among the youth, specifically adolescents and young adults, is alarming (NDMP: 2019: 1). Nyaope is a novel psychoactive substance, which was invented in South Africa in the mid-2000s [1]. Montesh, et al. (2015) discovered that nyaope emerged in 2007, in Soshanguve, Atteridgeville and Mamelodi, which are the black townships of the city of Tshwane [2]. Since then, Nyaope has become widely used throughout the country [3].

Nyaope is a cocktail drug composed of heroin, cannabis products and antiretroviral drugs [4]. The common components of nyaope are Delta-9-tetrahydrocannabinol, heroin, caffeine, dextromethorphan, phenacetin and the antiretroviral efavirenz and nevirapine [5]. Strauss (2022) added that nyaope is composed of rat poison, cleaning detergents, depressants such as phenobarbitone and benzodiazepines, benzitramide, moramide intermediates and thiofentanyl, and stimulants that include pipradol and fenethyline [1].

Mthembi, et al. (2021) reported that different components of nyaope make it highly addictive when smoked or injected, and it has severe withdrawal symptoms [1]. It is also reported that nyaope has side effects which include depression, anxiety, and negative feelings such as suicidal thoughts [6]. It is for this reason that nyaope users constantly experience sleeping difficulties, fear, low self-esteem, guilt, and anger [3]. To deal with these issues users use nyaope repeatedly until they are addicted [3].

Maintaining nyaope addiction is costly and this is the reason users who do not have the funds to access these commit crimes such as prostitution, and theft of valuable assets from their homes and communities [7]. Due to this, communities that live within the vicinity of nyaope users experience a high rate of petty crime [8]. As a result, nyaope users are stigmatised in their communities, which prevents them from accessing their right to health care and protection [9].

The discussion above indicates that nyaope has a negative impact on users' mental health and social life. Nyaope users do not stop using this drug despite its negative consequences [10]. This is regarded as addiction, which is described by Bordeaux, et al. (2023) as a disease caused

by the repetition of the behaviour after recreation until it becomes a habit [11]. Authors such as Flores, et al. (2023) have explained why people are addicted to drugs, such as cocaine, from the perspective of psychological theories of addiction perspectives [12]. However, psychological theories of addiction have not been used to understand why South African adolescents and young people are addicted to nyaope.

Psychological addiction theories

Psychological addiction theories are used to explain the long-term consequences of human behaviour and provide solid evidence-based explanations for drug addiction [13]. These explanations are based on classical, operant conditioning, and social learning theories [13]. The primary aim of these theories is to provide a holistic understanding of the factors that contribute to drug addiction [14].

In light of factors that contribute to drug addiction, the classical theory is rooted in the assumption that drug addiction is a behaviour which is learned by linking neutral stimuli to positive stimuli [15]. Boakes (2023) used Pavlov's dog model-when a dog hears the bell (neutral stimulus) and expects food (positive stimulus)-to make sense of classical theory [16]. In so doing, Boakes (2023) explained that Pavlov trained a dog to drool after certain neutral stimuli, such as the sound of the bell [16]. In this experiment, the sound of a bell was a cue for the dog to drool when receiving food [16]. Over time a dog drooled when it heard a bell before receiving its food [16].

Caldicott, et al. (2023) related Pavlov's dog model to explain drug addiction behaviour by stating that people take drugs in certain environments [17]. These environments are characterised by factors such as smell, which is a neutral stimulus [18]. The smell becomes a cue, and the next time a user smells the same aroma they feel the need to use drugs [19]. The repetition of this behaviour results in drug addiction [19].

Considering how Pavlov's dog model supports the classical theory in explaining drug addiction, operative conditioning theory claims that drug addiction is a behaviour that is reinforced by rewards [20]. Considering this, Dugre, et al. (2023) stated that drug addiction is associated with the brain's reward system in the sense that the use of drugs stimulates dopamine [11,21]. Dopamine is a hormone produced in the brain that is responsible for pleasant feelings such as happiness and pleasure [22]. These feelings become a reinforcer after the use of drugs

[11]. The brain reminds the user of this feeling until he/she is addicted to drugs [11].

Contrary to operative conditioning theory, social learning theory suggests that people become addicted to drugs through vicarious learning, which is learning through observation [23,24]. Bozarth (2023) argued that curiosity about the effects of drugs on users motivates people who have never used drugs to begin experimenting with them [10]. It has been reported that adolescents and young people who have witnessed their parents or friends using drugs are more likely to experiment and become addicted to drugs [25].

Social learning theory is further explained by the sociocultural theory of addiction, which assumes that cultural norms such as the use of cannabis in public may tempt individuals who have never used drugs to start using them [26]. Herrmann, et al. (2023) indicated that these cultural standards such as employment results in negative thoughts, depression and anxiety disorders for individuals who have not managed to find it [27]. According to the cognitive theory of addiction, people who are suffering from such mental health problems are more likely to start using and become addicted to drugs [28].

Methodology

This paper adopted a thematic review to provide background and context for why South African adolescents and young people are addicted to nyaope from the perspective of psychological theories of addiction. In so doing, 10 journal articles that were published in in peer-reviewed journals that followed a standard of article writing and reporting, were reviewed.

Google and Google Scholar were used as search engines. Keywords that were used to search for the journals were 'experiences of nyaope', 'impact of nyaope', 'consequences of nyaope' and 'the effects of nyaope on physiological and mental health' among South African adolescents and young people. The articles that were chosen focused on the implications of nyaope on users' mental and physical health, and social life. The findings that were outlined in these journals were inductively analysed and discussed in relation to drug addiction theories.

Analysis of articles

Ten articles that were thematically reviewed were summarized. Table 1 contains the names of researchers, the purpose of the study, and the findings.

Table 1: Summary of analysed articles

Researcher(s)	Purpose of the study	Findings
Mokwena and Huma (2014).	Explore the experiences of nyaope users	Nyaope users:
		• Initially enjoyed experimentation with but became addicted.
		• Regret ever starting to take the drug.
		• Nyaope causes extreme body pains,
		• Increase both the amount and frequency of using it.

		<ul style="list-style-type: none"> • Are characterised by deteriorating personal hygiene and dazed looks. • Steal anything to sell and perpetrate their habit.
Mokwena and Morojele (2014).	Explore the experiences of nyaope users.	<p style="text-align: center;">Nyaope is:</p> <ul style="list-style-type: none"> • Easy access to nyaope. • High unemployment rates.
Mokwena and Fernandes (2015).	To explore the experiences of 'nyaope' users	<p style="text-align: center;">The addictive nature of nyaope is influenced by:</p> <ul style="list-style-type: none"> • Friends and associates. • Easy access to drug dealers. • Police failure to arrest drug dealers.
Mokwena (2016).	Explore the experiences of nyaope users in black township.	<p style="text-align: center;">Nyaope is:</p> <ul style="list-style-type: none"> • A highly addictive drug. • Easily accessible. • Unfavorable social environment promotes the initial use of nyaope. • Difficult to quit. <p style="text-align: center;">Nyaope users:</p> <ul style="list-style-type: none"> • Desire to overcome their addiction.
Fernandes and Mokwena (2020).	Explore and describe the effect of nyaope on the lives of the users	<p style="text-align: center;">Nyaope interrupts:</p> <ul style="list-style-type: none"> • Physical, mental, and social health of the lives of young South Africans.
Moroatshella, Mokwena, Mutambirwa (2020).	Explore the impact of Nyaope on the sexual function of male users	<p style="text-align: center;">The use of nyaope has:</p> <ul style="list-style-type: none"> • A negative clinical effect • Biochemical effect on male sexual function.
Bala and Kang'ethe (2021).	To explore the dangers associated with the consumption of Nyaope.	<p style="text-align: center;">Health hazards associated with the use of nyaope are:</p> <ul style="list-style-type: none"> • Induces hallucinations and delusions. • Stimulates mood swings among females. • Creates a fertile ground for conflicts. • Leads to the destruction of the future.
Sibusiso, et al. (2022).	Explore the self-reported experiences of students who use nyaope.	<p style="text-align: center;">Students who use nyaope experience:</p> <ul style="list-style-type: none"> • Decline in academic performance. • Deteriorating relationships with other students. • Poor physical and psychological well-being. • Behavioral change. • Belief that they are discriminated against.
Mashaba (2020).	Examine psychosocial factors and the mental health of Nyaope users.	<p style="text-align: center;">Nyaope users have:</p> <ul style="list-style-type: none"> • Lower psychological well-being. • Poor mental health.
Mokwena, Kgotane and Koto (2022).	Pathological pain of nyaope users.	<p style="text-align: center;">Nyaope users experience:</p> <ul style="list-style-type: none"> • Sharp pain in the umbilical, para-umbilical and whole abdomen. • Oesophageal candida. • Chronic gastritis. • Helicobacter pylori infections.

The themes that emerged from the reviewed articles suggest that factors that contribute to nyaope addiction among South African adolescents and young people are experimentation, withdrawal symptoms, negative social circumstances, and mental disorders.

Experimentation

Mokwena, et al. (2014) reported that both male and female users initially enjoyed experimentation with nyaope. Unfortunately, they became addicted to this drug.

Mokwena, et al. (2015) also reported that users who have experimented with friends and associates and became addicted, regretted that they had ever started taking the drug. However, some nyaope addicts desire to find and utilise help to overcome addiction.

Withdrawal symptoms

The negative consequences of using nyaope are withdrawal symptoms which include sharp pain in the umbilical, para-umbilical and the whole abdomen. Other negative

consequences result in oesophageal candida, chronic gastritis, helicobacter pylori infections, and mood swings [9]. Mokwena, et al. (2014) indicated that withdrawals experienced by nyaope users force them to increase the amount and frequency of use.

Negative social circumstances

A negative social environment plays a role in tempting non-users to start using nyaope. This is due to easy access to drug dealers, police failure to arrest drug dealers, and high unemployment rates.

Mental disorder

Nyaope has a negative biochemical effect, which lowers users' mental health and psychological well-being. This also results in hallucinations and delusions [9].

Discussion

Drug addiction is destructive behaviour, which forces addicts to use drugs regardless of mental health and social issues associated with the use of drugs such as nyaope [29]. Considering this, it seems that addicts are unable to stop using nyaope despite the harmful effects it has on their lives and the people around them. Hence, this thematic review was aimed at providing background and context for why South African adolescents and young people are addicted to nyaope from the perspective of psychological theories of addiction.

In this review, it appeared that experimentation with nyaope leads to addiction. This finding can be explained by social learning theory which claims that drug addiction is learned through observation [23]. In explaining this, Can, et al. (2023) indicated that adolescents experiment with drugs due to peer pressure [30]. In other words, adolescents learn to use drugs after observing friends and people they consider idols who use drugs [30]. Learning by observation is part of human growth, which occurs through a series of experiments [31]. These experiments inform individuals' life-world orientation, which is an initial process of learning by experiencing various traditional patterns of life [32]. Unfortunately, experimentation with drugs leads to drug addiction, which can be minimised by screening adolescents and young people for substance abuse in schools or homes [33].

The finding is that withdrawal symptoms associated with the use of nyaope lead to addiction. This finding suggests that the extreme pain experienced by users after the use of nyaope, motivates them to continue with the use of this drug. This is confirmed by Varshney, et al. (2023) who reported that users consume more nyaope as a remedy to alleviate the pain they are experiencing after the use of this drug [6]. However, this remedy only alleviates pain for the period nyaope is in the system of the user [34]. This becomes a vicious cycle of consuming more nyaope until the user is addicted [34].

The use of nyaope to alleviate the pain caused by this drug is explained by the theory of operating condition, which postulates that drug addiction is a behaviour that is

reinforced by rewards [20]. Confirming this, Chakraborty (2023) reported that using more nyaope to alleviate the pain rewards the individuals by not experiencing the pain in that particular period. Davlembayeva, et al. (2023) added that alleviation of pain by using the same drugs that caused that pain is a reward-based behaviour which is more likely to be repeated.

Finding that negative social conditions play a role in nyaope addiction suggests that exposure to drugs motivates individuals who are not using drugs to start using them. In light of this, Hellman, et al. (2022) reported that individuals who are residing in communities that accept addictive substances such as cannabis as a norm are more likely to start using nyaope. It has been reported that adolescents and young people who are addicted to nyaope started by using cannabis which was accepted in their communities [8]. Drug addiction due to these negative social conditions is linked with sociocultural theory, which ascertains that negative cultural norms have a role in widespread drug addiction [35].

The finding that mental disorder leads to addiction implies that it is easy for a person with affected psychological and emotional well-being to be addicted to drugs. In line with this, Heilig, et al. (2021) used the biological theory of addiction to disclose that the use of drugs distorts the brain chemistry structure, which is responsible for sending and receiving chemical signals throughout the body [36]. The brain transmits chemicals from one neuron, or nerve, to the other [36]. This process plays a vital role in how humans feel and perform their day-to-day functions [36]. Thus, individuals with distorted brain chemistry try to improve their emotions and the way they perform day-to-day functions by consuming more drugs until they are addicted [11].

Conclusion

The conclusion of this paper is that nyaope addiction is a behaviour that is learned through natural stimulations, physiological reward systems, negative environments, and negative cultural norms. These factors put individuals who have not used nyaope in the position to believe it is necessary to start using this drug, which appears pleasant and less dangerous for first-time users.

Recommendation

It is recommended that institutions providing rehabilitation services for drug addicts identify factors causing drug addiction and develop programmes to address these factors.

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Conflict of Interest

I confirm that this work is original and has not been published elsewhere, nor is it currently under consideration for publication elsewhere.

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