

## Exploring the role of external locus of control in the use of Nyaope: a qualitative enquiry

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### Abstract

*Nyaope is a novel psychoactive product commonly abused in South Africa whose unprecedented dependency is not fully understood. Due to dearth of studies on nyaope, the purpose of this study was to explore the experiences of users in three provinces, using both in-depth interviews and focus group discussions to collect data from both male and female nyaope users. Qualitative data analysis yielded several themes, among which was external locus of control (external LOC), which is a belief that smoking nyaope is controlled by factors external to themselves. The addictive nature of this mixture of drugs, the influence of friends and associates, drug dealers who avail and sell nyaope as well as failure of the police to arrest the dealers were viewed as elements of external LOC. It is recommended that rehabilitation programs for nyaope (which are currently non-existent) should include elements to increase internal locus of control.*

**Keywords:** Nyaope, drug abuse, novel psychoactive substances, external locus of control

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## Introduction

The high prevalence of drug abuse in South Africa, including an increase in the use of cannabis, cocaine and crystal methamphetamine, which is also known as 'tik' has been well documented (Parry et al., 2004; Parry et al., 2007; Plüddemann et al. 2008; Pelzer & Ramlagan, 2009; Nyabadza & Hove-Musekwa, 2010; Parliamentary Monitoring Group [PMG], 2011; September, 2013). South Africa is thus known as one of the drug capitals of the world (Parry et al, 2004) and it is estimated that 11% (5.7 million people) of the South African population will experience an addiction disorder in their lifetime (Parry et al., 2007) which highlights the seriousness of the prevalence of drug abuse in South Africa.

Novel psychoactive substances (NPSs) or designer drugs are an ever-increasing group of compounds, which may be synthetic or natural. South Africa has also experienced an increase in the prevalence of a wide range of NPSs, among which is '*nyaope*', a relatively new South African illicit cocktail drug. Although *nyaope* has been increasingly and widely used from about the year 2000, it was only classified illegal in March 2014 (Government Gazette South Africa, 2014) with the amendment of the Drugs and Trafficking Act of 2014 (Plüddemann et al, 2008).

The past decade and a half has seen an increase in easy access and use of *nyaope*, as well as the devastating impact on the users. The uniqueness of *nyaope* is that it is a South African phenomenon, and is almost limited to Black young people. There is dearth of formal studies on *nyaope* and most of what is known has been reported by the media (Peltzer & Ramlagan, 2009). Heroin is the main ingredient to which a number of illegal substances have been added, and these include methamphetamine and cocaine. Household products such as rat poison, detergents, antiretroviral medications and paracetamol are reported to be added as it is believed that these make the drug to be more potent (Nyabadza & Hove-Musekwa, 2010; PMG, 2011; September, 2013).

According to several South African media publications, the drug is known by different names in different areas of the country, including 'sugars' in Kwa Zulu Natal province, 'Ungah' in the Western Cape province, 'Pinch' in Limpopo and Mpumalanga provinces, and 'Kataza' in Johannesburg (United Nations Office on Drugs, 2010). All the names refer to a cocktail that contains some amount of heroin and other substances, which is rolled with cannabis and smoked. Due to the dearth of any formal studies on *nyaope*, scientific literature is unavailable and much of the information about *nyaope* is obtained from media publications, workshops and awareness campaigns, or other materials from non-governmental organizations.

Since *nyaope* is manufactured, mixed and sold illegally, there are no specifications for the drug components and their amounts vary in composition, as well as the amounts of the various additives (Rough et al. 2014; South African Depression and Anxiety Group, 2011; Marwaha, 2008; Davis & Steslow, 2014).

In order to ensure and increase sales, the dealers continue to decrease the quantities per fix and therefore sell a fix for as little as \$3, which enables the users to afford and continue to buy the drug. This makes *nyaope* to be the cheapest illicit drugs in South Africa and is easily accessible to many young people who are fascinated by the rush and euphoria that is provided by the drug (Gosh, 2013). Sold in powder form, *nyaope* is smoked by rolling it with cannabis, heating it up and inhaling the fumes.

Anecdotal reports suggest that small doses of *nyaope* make the users feel high and happy. However, the initial feeling of euphoria is followed by drowsiness and feeling of being relaxed, which has been reported by heroin users. Continued use requires addicts to take increasingly stronger mixtures and/or frequent use of the drug to get 'high' until they are dependent on it, and cravings result in physical pain. Users have reported that *nyaope* is not like any other drug they know, both in the effects it has, and the painful symptoms that occur if they have not smoked it (Mokwena & Huma, 2014). Treatment is expensive and requires long periods of rehabilitation, and the withdrawal symptoms are harsh.

Literature has identified a number of factors that are contributory to drug use and these include experimenting, peer pressure, ease of availability of substances, lack of recreational activities, poverty, unemployment, being surrounded by substance abusers and low self-worth as contributory to substance abuse (Farhadinasab et al., 2008; Boyd, 2011; Geramian et al., 2012; Allen et al., 2012; Colder et al., 2013). Once started, users of *nyaope* find it very difficult to stop because of the addictive nature of the drug (Gosh, 2013; Grelotti et al., 2014). *Nyaope* has been identified as one of the most addictive substances ever to be experienced in South Africa. Many *nyaope* users resort to stealing anything they can lay their hands on, which they sell to get some money to support their habits.

Social inequality has been reported to contribute to an increase in alcohol and drug use among the poor (Room, 2005) and this in turn increases crime rate (Edmark, 2005; Lin, 2008; Fougère et al., 2009) and social degradation. Additionally, Black South Africans have the highest unemployment rates (Özler, 2007) which further increases poverty in this sector of the population. Actually, the poverty has been reported to be a contributory factor to *nyaope* use in the affected communities (Mokwena & Morojele, 2014) which strengthens the already bidirectional relationship between poverty and *nyaope* use. Due to the resultant low socio-economic status, rehabilitation services for *nyaope* users are almost non-existent, because most of the users do not have resources for private rehabilitation services and there are very few facilities for public services. Access to substance abuse treatment among historically disadvantaged communities in South Africa is limited, despite a growing demand for services (Parry, 2005; Myers & Fakier, 2007; Plüddemann et al., 2008; Ramlagan et al., 2010).

Locus of control (LOC) is recognized as one of the key predictive factors in the onset and continuous use of substances among adolescents (Farhadinasab et al., 2008). As a psychological variable, LOC evolved from Bandura's Social Learning Theory (Bandura, 1971) which suggests that observed and imitated behaviors are either reinforced through reward or extinguished through punishment (Halpert & Hill, 2011). LOC, which can be either internal or external, refers to the individual's beliefs regarding the relationships between

action and outcome, and this explains how people actively deal with difficult circumstances in their lives. Individuals with a higher internal LOC orientation believe and expect that they will determine their own future because of their own actions i.e. they are actively in control over what happens to them, while those with a higher external LOC orientation do not expect to have any control or influence over their future and lives, believing that the outcome is a result of external or impersonal forces such as luck, prayer, fate, or powerful others (Singh & Singh, 2011). However, because *nyaope* is a relatively new drug with limited studies conducted on it, the current study sought to explore the experiences of *nyaope* users in three provinces of South Africa.

## **Methodology**

### **Study design**

The study design was qualitative and explorative, using a combination of in-depth interviews (IDI) and focus group discussions (FGD).

### **Study settings**

The study was conducted in three provinces of South Africa, these being Gauteng (Soshanguve and Pretoria Central Business District [CBD]), Mpumalanga (Witbank and Bronkhorstspuit) and North West (Klipgat).

### **Sample and sample size**

Participants who were 18 years of age and above, who understood the purpose and procedure of the study, and who provided informed consent were included. The sample size was determined by data saturation, which was the stage at which additional IDIs and/or FGDs no longer provided new information. A total of ten FGDs and twenty IDIs involving 123 participants in total were conducted.

### **Data collection**

The purpose of the study was explained and the participants were given the opportunity to ask questions. The informed consent forms were distributed and signed by the participants, which was followed by filling the self-administered demographic questionnaire and FGD or IDI, as applicable. The data collection instruments were researcher-developed and pre-tested before the main study. The instruments were in English but the explanations were provided in the participants' languages, which included IsiZulu or Setswana.

### **Data analysis**

The qualitative data were transcribed verbatim, translated from the local languages into English, typed into Word and uploaded into NVivo version 10 for analysis. The analysis yielded themes which were used to write the findings, and external LOC was one of the themes that emerged from the data. This paper is restricted to report on the external LOC theme.

Trustworthiness was achieved by data triangulation, which was done by collecting data from different provinces, townships and different individuals which included both males and females across different age groups. Methodological triangulation was applied by using both IDIs and FGD for data collection. Dependability of the findings was enhanced by employing a good quality digital recorder and by transcribing the recorded audio data verbatim

### **Ethical considerations**

The study was approved by the Medunsa Research & Ethics Committee (project number MREC/H/165/2012: IR). The purpose of the study was explained to the participants who were given the opportunity to ask questions. All participants provided informed consent before participating. The interviews were conducted in the participants' language of choice, which included English, Setswana or IsiZulu.

### **Findings**

Although several themes emerged from data analysis, the focus of this paper is external LOC, which is the participants' belief that both the initial experimentation and continued use of *nyaope* is determined by the actions of other people and the circumstances in their social environment. For this study, the four elements that determine external LOC were the addictive effects of *nyaope*, their friends and associates who influenced them to smoke *nyaope*, the drug dealers who avail and sell *nyaope*, and the police, who fail to arrest the drug dealers. Additionally, a fifth theme, role of internal LOC, was identified.

#### **Addictive effects of *nyaope***

This theme refers to the views that their use of *nyaope* occurs because of its addictive effects. These statements include “*Once you become a smoker, you will not be able to sleep without smoking*”, “*The craving is very strong and you cannot just ignore it*”, “*you cannot just leave it, you will go back whether you like it or not*” and “*you will be overcome by (physical) pain that will make you give in.*”

#### **Influence of friends and associates**

This theme refers to the participants attributing their use of *nyaope* to the influence exerted by friends and/or associates. The theme emerged from statements such as “*I was influenced by my friends. We started by smoking cannabis, but after discovering nyaope, we smoked it*” and “*yes, I remember, I once went to Johannesburg with my boyfriend to buy it. We bought a lot of it and we smoked it for three days.*”

#### **The drug dealers who avail and sell *nyaope***

This theme attributes their use of *nyaope* to the drug dealers, and is communicated by the following statements: “*the dealers are everywhere*”, “*get rid of those people that bring it to us*”, “*the dealers must be stopped but they have a lot of connections*”.

#### **The police fail to arrest the drug dealers**

This theme blames the continued use of *nyaope* on the police, reasoning that if police were arresting drug users, they would not be selling the drug and therefore *nyaope* would not be available for them to buy and use. This was stated as *“If you look around you will see the Police station is close to the station, there are many people who sell nyaope at the station, it would be easy for the police to catch them, but they don’t do their job. It goes to show that they (dealers) work together with the police”*. Other statements included *“The police officers work with the suppliers, so it is going to be very hard to stop the sale and use of nyaope.”*, *“Police officers are also corrupt. They accept bribes from drug dealers”* and *“The dealers pay the police”*.

### **Role of internal locus of control**

This theme refers to the participants’ acknowledgements that internal LOC, which is the belief that the ability to take control of their *nyaope* addiction lies within themselves. The following statements reflect this view:

*“Nyaope is a state of mind. You have to decide and tell yourself that you do not want it anymore, but it is not easy.”*

*“I think it’s psychological, if your mind tells your body that it won’t get the cravings, they you won’t (get the cravings).”*

*“I know a guy that just stopped smoking it without doing anything, they just told themselves they are going to stop and they did”.*

*“I think it’s psychological, if your mind tells your body that it won’t get the cravings, (then you won’t)”.*

The above statements show that although the users view external factors to be responsible for their use of *nyaope*, there is also some acknowledgement that determination has a role on whether they are successful in stopping the use of *nyaope*.

### **Discussion**

Literature has shown that a person’s beliefs about the extent to which he/she has control over drug-dependence is a determinant of drug-related behaviour than the actual control (Ersche, Turton, Croudace, & Štochl 2012) and the findings of this study suggest that some *nyaope* addicts have a poor perceptions of their ability to rise above the *nyaope* grip, as informed by their external LOC. Many drug addicted individuals have a high external LOC, which results in them accosting blame to other people and circumstances for the problems they encounter in their lives, and under-estimating the control and actions they have in their lives (Farhadinasab et al, 2008). Interventions for *nyaope* addiction should include increasing the users’ LOC to enable them to take charge of their destiny.

The identified external LOC trends amongst *nyaope* users have implications for other areas in their lives because externality is correlated with poor school achievement, helplessness, ineffective stress management and decreased self-control (Twenge and Zhang, 2004) which further increase the vulnerability to *nyaope* and other drug use. The elements of external LOC displayed by the participants may further increase their helplessness and

decrease their self-control, which correlates with lower psychological well-being (Patterson et al., 2004).

Higher internal LOC is also associated with more positive outcomes for those clients who use and abuse drugs (Ersche et al, 2012; Hall, 2001; Jafari & Shahidi, 2009; Kao et al., 2014). The benefits of a high internal LOC are that the belief that an individual is in control of his/her own future a person is more motivated to take action, to engage in behaviours that will improve their lives and are willing to make sacrifices to achieve set goals, as ultimately they know that they will be rewarded (DARA, 2013).

### **Conclusion**

This study identified external LOC as a common trend amongst *nyaope* users, and that this may be a contributory factor towards their initial experimentation with, and the continued use of *nyaope*. Currently there are no known *nyaope*-specific behavioural rehabilitation programs, and it is recommended that such programs must include processes and activities to increase internal locus of control. The participants' confirmatory statements that stopping *nyaope* use is also related to their determination is an encouraging starting point, which can be enhanced to be included in future *nyaope* rehabilitation programs. It is further recommended that future studies should include the quantification of external LOC among *nyaope* users, which may assist in clarifying the roles of the strong addictive effects of *nyaope* versus external LOC as contributory factors to *nyaope* use.

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### **References**

- Allen, J.P, Chango. J., Szewedo, D., Schad, M. & Marston, E. (2012). Predictors of susceptibility to peer influence regarding substance use in adolescence. *Child Development*, 83(1): 337–350.
- Bandura, A. (1971). *Social learning theory*. General Learning Press. New York City.
- Boyd, J.L. (2011). Factors that influence teenagers to substance abuse. Available at: <http://www.livestrong.com/article/90399-factors-influence-teenagers-substance-abuse/>, date accessed February 2014.
- Colder, C.R., Scalco, M., Trucco, E.M., Read, J.P., Lengua, L.J., Wieczorek, W.F. & Hawk, J.L.W. Jr. (2013). Prospective associations of internalizing and externalizing problems and their co-occurrence with early adolescent substance use. *Journal of Abnormal Child Psychology*, 41:667–677.

- Drug and Alcohol Rehab Asia [DARA]. (2013). Internal locus of control and addiction recovery. Available at: <http://alcoholrehab.com/alcohol-rehab/internal-locus-of-control-addiction-recovery/>, date accessed February 2014.
- Davis, G. P. & Steslow, K. (2014). HIV Medications as Drugs of Abuse. *Current Addiction Reports*, 1-6.
- Edmark, K. (2005). Unemployment and crime: Is there a connection? *The Scandinavian Journal of Economics*, 107(2), 353-373.
- Ersche, K.D., Turton, A.J., Croudace, T. & Štochl, J. (2012). Who do you think is in control in addiction? A pilot study on drug-related locus of control beliefs. *Addict Disorders and Their Treatment*, 11(4): 173–223.
- Farhadinasab, A., Allahverdipour, H., Bashirian, S. & Mahjoub, H. (2008). Lifetime pattern of substance abuse, parental support, religiosity, and locus of control in adolescent and young male users. *Iranian Journal of Public Health*, 37(4):88-95.
- Fougère, D., Kramarz, F. & Pouget, J. (2009). Youth unemployment and crime in France. *Journal of the European Economic Association*, 7(5), 909-938.
- Geramian, N., Akhavan, S., Gharaat, L., Tehrani, A. & Farajzadegan, Z. (2012). Determinants of drug abuse in high school students and their related knowledge and attitude. *Journal of Pakistan Medical Association*, 62: S-62; 20.
- Gosh P. (2013). Nyaope: Cheap drug cocktail ravaging black townships of South Africa. Available at: <http://www.ibtimes.com/nyaope-cheap-drug-cocktail-ravaging-black-townships-south-africa-1408926>, date accessed February 2014.
- Government Gazette South Africa (2014). Regulation Gazette No 37495, 28 March 2014, Vol 585 No 10162, 3. Pretoria: Government Printer.
- Grelotti, D. J., Closson, E. F., Smit, J. A., Mabude, Z., Matthews, L. T., Safren, S. A. & Mimiaga, M. J. (2014). Whoonga: potential recreational use of HIV antiretroviral medication in South Africa. *AIDS and Behavior*, 18(3), 511-518.
- Hall, E.A. (2001). Feelings about drug use drug-related locus of control. Available at: <http://www.uclaisap.org>, date accessed February 2014.
- Halpert, R. & Hill, R. (2011). Chapter 28: Measures of locus of control. Published in “The Locus of Control Construct’s Various Means of Measurement: A researcher’s guide to some of the more commonly used Locus of Control scales”. ISBN 978-0-9833464-3-2, WILL TO POWER PRESS, Beach Haven, New York.
- Jafari, M. & Shahidi, S. (2009). Comparing locus of control, assertiveness and general health among young drug dependent patients in Iran. *Iran Journal of Psychiatry*, 4: 46-51.
- Kao, D., Torres, L.R., Guerrero, E.G., Mauldin, R.L. & Bordnick, P. S. (2014). Spatial accessibility of drug treatment facilities and the effects on locus of control, drug use, and service use among heroin-injecting Mexican American men. *International Journal of Drug Policy*, 25(3), 598-607.
- Lin, M. J. (2008). Does unemployment increase crime? Evidence from US data 1974–2000. *Journal of Human Resources*, 43(2), 413-436.
- Marwaha, A. (2008). Getting high on HIV drugs in South Africa. BBC News Available at: <http://www.news.bbc.co.uk/2/hi/africa/7768059.stm>, date accessed February 2014.

- Mokwena, K.E. & Huma, M. (2014). Experiences of 'nyaope' users in three provinces of South Africa. *African Journal for Physical, Health Education, Recreation and Dance*, September (Supplement 1), 352-363.
- Mokwena, K.E & Morojele, N. (2014). Unemployment and unfavourable social environment as contributory factors to nyaope use in three provinces of South Africa. *African Journal for Physical, Health Education, Recreation and Dance*, September (Supplement 1), 374-384.
- Myers, B. & Fakier, N. (2007). Audit of Substance Abuse Treatment Facilities in Gauteng and KwaZulu -Natal (2006-2007): Technical Report. Available at: <http://www.sahealthinfo.org/admodule/substancepol2007.pdf>, accessed February 2014.
- Myers, B., Fakier, N. & Louw, J. (2009). Stigma, treatment beliefs, and substance abuse treatment use in historically disadvantaged communities. *African Journal of Psychiatry*, 12, 218-222.
- Nyabadza, F. & Hove-Musekwa, S.D. (2010). From heroin epidemics to methamphetamine epidemics: Modelling substance abuse in a South African province. *Mathematical Biosciences*, 225(2), 132-140.
- Özler, B. (2007). Not separate, not equal: Poverty and inequality in post-apartheid South Africa. *Economic Development and Cultural Change*, 55(3), 487-529.
- Parliamentary Monitoring Group [PMG] 2011. Substance use and abuse in South Africa. Central Drug Authority briefing. Available at: <http://www.pmg.org.za>, date accessed February 2014.
- Parry, C.H.D. (2005). Substance abuse intervention in South Africa. *World Psychiatry*, 4 (1), 34-35.
- Parry, C. D., Myers, B., Morojele, N. K., Flisher, A. J., Bhana, A., Donson, H. & Plüddemann, A. (2004). Trends in adolescent alcohol and other drug use: findings from three sentinel sites in South Africa (1997–2001). *Journal of Adolescence*, 27(4), 429-440.
- Parry, C. D., Plüddemann, A. & Myers, B. J. (2007). Cocaine treatment admissions at three sentinel sites in South Africa (1997–2006): findings and implications for policy, practice and research. *Substance Abuse Treatment, Prevention, and Policy*, 2(1), 37
- Patterson, F., Lerman, C., Kaufmann, V. G., Neuner, G. A. & Audrain-McGovern, J. (2004). Cigarette smoking practices among American college students: review and future directions. *Journal of American College Health*, 52(5), 203-212.
- Peltzer, K. & Ramlagan, S. (2009). Alcohol use trends in South Africa. *Journal of Social Science*, 18(1), 1-12.
- Plüddemann, A., Flisher, A. J., Mathews, C. & Lombard, C. (2008). Adolescent methamphetamine use and sexual risk behaviour in secondary school students in Cape Town, South Africa. *Drug and Alcohol Review*, 27(6), 687-692.
- Plüddemann, A., Plüddemann, A., Myers, B. J. & Parry, C. D. (2008). Surge in treatment admissions related to methamphetamine use in Cape Town, South Africa: Implications for public health. *Drug and Alcohol Review*, 27(2), 185-189.

- Ramlagan, S., Peltzer, K. & Matseke, G. (2010). Epidemiology of drug abuse treatment in South Africa. *South African Journal of Psychiatry*, 16(2): 40-49.
- Room, R. (2005). Stigma, social inequality and alcohol and drug use. *Drug and Alcohol Review*, 24(2), 143-155.
- Rough, K., Dietrich, J., Essien, T., Grelotti, D. J., Bansberg, D. R., Gray, G. & Katz, I. T. (2014). Whoonga and the abuse and diversion of antiretroviral in Soweto, South Africa. *AIDS and Behavior*, 18(7), 1378-1380.
- September, J. (2013). Youth “Woundedness” and the substance abuse crises in South Africa. Available at: <http://www.citizensmovement.org.za/be-informed/articles/youth-woundedness-and-the-substance-abuse-crises-in-south-africa>, date accessed February 2014.
- Singh, A. & Singh, D. (2011). Personality characteristics, locus of control and hostility among alcoholics and non-alcoholics. *International Journal of Psychological Studies*, 3(1):99-105
- South African Depression and Anxiety Group (2011). Nyaope- not so new, just as deadly. [http://www.link2media.co.za/index.php?option=com\\_content&task=view&id=12560&Itemid=15](http://www.link2media.co.za/index.php?option=com_content&task=view&id=12560&Itemid=15), accessed on October 2014.
- Twenge, J. M., Zhang, L. & Im, C. (2004). It's beyond my control: A cross-temporal meta-analysis of increasing externality in locus of control, 1960-2002. *Personality and Social Psychology Review*, 8(3), 308-319.
- United Nations Office on Drugs. (2010). World Drug Report 2010. United Nations Publications.