YOUTH, SUBSTANCE ABUSE AND SOCIAL MEDIA: A LETHAL SYMBIOSIS

Oluwafisayo F. Abdul,
Department of Mass Communication, Babcock University, IIishan-Remo, Ogun State, Nigeria
abdul.fizzy@gmail.com

KoladeAjilore, Ph.D
Department of Mass Communication, Babcock University, IIishan-Remo, Ogun State, Nigeria
ajilorek@babcock.edu.ng

Abstract
Today's generation of youths and young adults are growing up immersed in social media that promote user-generated content and interactions between users. Social media sites are an environment, in which drug-related content is frequently created and consumed by youths. Displayed drug references on social media may include information and images pertaining to drug that may influence viewers and be indicative of offline drug use. Despite the promising potential to utilize social media environment to monitor and treat substance use problems, the upsurge in the intake of substances amongst youths persisted. The characteristics, mechanisms, and outcomes of substance use-related contents remained largely unknown.As exemplified in communication research, the present study is an attempt to give a robust clarification on the influential nature of the social media, including the conceptualization of key terms.
Keywords: Social Media, Youth, Substance Abuse.

Introduction

Substance use and abuse by youth has become a disquietingsubject for public health services,and several socio-environmental factors can influence how susceptible young adolescents may be to their appeal. Some of the socio-environmental factors that typically make youths and young adolescents more or less vulnerable to substance abuse - such as peer pressure, and school and/or family environments - have already been systematically examined. However, the social media have been recently found to be another factor that poses threatand provide increased opportunities for both marketing and social transmission of risky products and behavior. Alcohol and marijuana use in adolescents and young adults are of particular concern because it has been implicated as the primary cause ofboth unintentional (e.g., motor vehicle crashes, violence victimization) and intentional (eg, self-inflicted) injury. Past studies have described the influence of some disturbing alcoholic related posts on sites such as MySpace, Facebook, and Twitter (Moreno, Briner, Williams, Brockman, Walker & Christakis, 2010). In particular, displays of alcohol use on social media have been found to be indicative of personal use among young people (Moreno, Christakis, Egan, Brockman & Becker, 2012) and are likely to enhance normative perceptions among followers of those posts (Litt& Stock, 2011).

The topical exponential advancement of the Internet, and specifically of social media, and the impact it has had on the use of substances as well as the society is infinite. Findings on the possible determinants of drug use or misuse among adolescents have been mixed. While some attribute the problem topeer pressure and family background (Allen, Donohue, Griffin, Ryan,

Turner 2003, Lonczak, Fernandez, Austin, Marlatt&, Donovan 2007, NIDA, 2009), others ascribe it to Internet enabled social media (Ismail, Affandy&Basir, 2014).
Moreover, it is yet stressed that the most influencing aspect in this era is the social media. Social media usage provides new opportunities for exposure to unhealthy substances because they are advertised more and more often on digital media, even among adolescents (The Council on Communications and Media Policy Statement, 2010). Researchers (Pempek, Yermolayeva& Calvert, 2009)have found that asmany as 25–37% of older teenagers post details abouttheir alcohol drinking. The content of such posts maygive adolescents the impression that substance use is anorm among peers of the same age and older. Compared with those who see substance use portrayed less frequently, adolescents who gain the impression from social media profiles that it is normal to use or abuse substances are at higher risk of developing an attitudeshown to predict substance abuse. It is further argued that the interconnection between youths' attitudinal disposition towards substances and their exposure to pictorial images portrayed on social media cannot be overemphasised. The justification for this consideration is further driven by theprecedence given to contextualisation in contemporary substance and media related studiesas exemplified in the following communication research efforts.

Conceptualizing Psychoactive Substance

Psychoactive substance has been widely adopted to refer to diverse compounds. A profound shift in the market for drugs has occurred during the last decade. A multitude of progressively increasing and easily available psychoactive substances have flooded the market. In 2014 and 2015, the European Monitoring Centre for Drugs and Drug Addiction identified a total of 199 new substances, which is the equivalent to at least two new drugs per week (EMCDDA, 2016). In 2016, the number of newly detected substances decreased to 66, which is the equivalent to the levels in 2012 and 2013. The total number of detected and monitored substances in Europe is currently 620, of which 426 were identified during the past five years (EMCDDA, 2017). It is gradually becoming difficult to monitor the concurrentincrease of online drug vendors on the Internet. Moreover, the availability of unregulated psychoactive substances is not limited to the European market but also constitutes a global dilemma of concern; a worldwide survey showed that at least 94 countries reported a recent emergence of New Psychoactive Substances (INCB, 2013; UNODC, 2014).

Psychoactive substance according to WHO Lexicon of Alcohol and Drug Terms is "a substance that, when ingested, alters mental processes" (WHO Lexicon 1994). All the way through history, people all over have found divers ways to alter consciousness and avoid realities through the ingestion of substances. ACMD (2015) similarly describes psychoactive substance as a compound which is capable of producing a pharmacological response on the central nervous system or which produces a chemical response in vitro, identical or pharmacologically similar to substances controlled under the Misuse of Drugs Act 1971. In professional practice of recent times, psychoactive substances known as psychotropic drugs have been developed and identified as useful in the treatment, management or cure of patients with severe mental illnesses (Haddad, 2015). Psychoactive substances exert their effects by modifying biochemical or physiological processes in the brain. The message system of nerve cells, or neurons, relies on both electrical and chemical transmissions. In his study, Haddad observed that Neurons rarely touch each other; the microscopic gap between one neuron and the next, called the synapse, is bridged by chemicals called neuro-regulators, or neurotransmitters (2015).

Psychoactive drugs act by altering neurotransmitter function. Psychoactive compounds are also defined as drugs that influence subjective experience and behavior by acting on the nervous system (Julien, Advocat, &Comaty, 2011). More specifically, the psychoactive properties of drugs in general derive from their temporary interaction with the endogenous neurotransmitter systems of the central nervous system in the brain (Perrine, 1996). The multiple ways in which different drugs interact with different neurotransmitter systems greatly influence the specific psychoactive effect. The mood-, consciousness-, perception-, and behavior-altering effects of drugs are mainly produced by facilitating or inhibiting the synthesis, storage, release, binding, or deactivation of neurotransmitters. An agonist drug is said to stimulate, mimic or increase the activity of a neurotransmitter while an antagonist drug blocks or decreases the normal functioning of a neurotransmitter. The arousing effects of many stimulants are, for example, caused by a release and inhibited reuptake of dopamine and norepinephrine (Julien et al., 2011).

The Psychology Dictionary (2002) describes psychoactive drugs as chemical substances that affect the brain functioning, causing changes in behavior, mood and consciousness. They are chemical substances that alter mood, behavior, perception, or mental functioning. The drugs are divided into six major pharmacological classes based on their desired behavioral or psychological effect: alcohol, sedative-hypnotics, narcotic analgesics, stimulant-euphoriants, hallucinogens, and psychotropic agents.

Berger and Phillip (2009) as cited by Haddad (2015) noted that Alcohol has always been the most widely used psychoactive substance. In most countries, they added, Alcohol is the only psychoactive drug that is legally available without prescription. In most cases, pleasant relaxation is commonly the desired effect and the major reason for taking alcohol, but intoxication weakens judgment and most especially driving performances leading to most of the recorded accidents. When taken frequently, alcohol can be toxic to liver and brain cells and can be physiologically addicting, producing dangerous withdrawal syndromes.Sedative-hypnotics, such as the barbiturates and diazepam (widely known under the brand name Valium), include brain depressants, which are used medically to help people sleep (sleeping pills), and antianxiety agents, which are used to calm people without inducing sleep. Sedative-hypnotics are used to produce relaxation, tranquillity, and euphoria. Overdoses of sedative-hypnotics can be fatal; all can be physiologically addicting, and some can cause a life-threatening withdrawal syndrome (Haddad, 2015).

Hallucinogens—psychedelic drugs such as LSD (Lysergic Acid Diethylamide) is another type of psychoactive substance which have little medical use. They are also illegally used to alter the functionality of insight and thinking patterns respectively. Marijuana, though a weak hallucinogen was found to be medically useful in defeating the nausea caused by cancer treatments and possibly in reducing eye pressure in certain severe glaucoma (Muoti, 2014).
These kinds of drugs reduce the occurrences of schizophrenia, allowing many schizophrenic patients to leave the hospital and re-join community life. Antidepressant drugs help the majority of patients with severe depression recover from their disorder. Lithium salts eliminate or diminish the episodes of mania and depression experienced by manic-depressive patients (Berger & Philips 2009).

Psychoactive Substances in Nigeria

History has it that Psychotropic drugs have been in use since the early 1950s. Human beings have always had a desire to eat or drink substances that make them feel tranquil, motivated or enraptured. The discovery of fermentation and farming since 6000BC is when people started to use drugs. Matowo (2013) found out that the first substance to be abused was homemade alcohol wine and the level could read up to 14-16%. It was used in religious rites and children were given it too in their Holy Communion. Other substances were used for legitimate purposes, medical or scientific purposes, (Matowo, 2013). The recorded history of psychoactive substance use in Africa is relatively short except for the reports on the use of traditional substances such as alcohol, cannabis and khat. Odejide (2006) asserts that the introduction of prescription drugs to Africa drastically increased the availability and use of psychoactive substances. This notwithstanding, alcohol, cannabis and khat still remain the most common substances of abuse in Africa.

The UNODCCP (1999) observed that seizure statistics are the most widely and consistently gathered source of information on illicit drug trends in Africa. While these statistics thus comprise some of the most important indicators for the development of drug policy, they can as well be misrepresentative owing to certain limitations that manifest themselves with unusual clarity in the African context. As elsewhere, there is the inherent uncertainty as to whether seizure information reflects actual changes in illicit drug trends or rather extraneous changes in resources, commitment, technical capability or luck of the authorities. But due to the extent to which those constraints manifest themselves in sub-Saharan Africa, the wisdom of using seizure statistics as the sole basis for drug policy development is especially questionable. Other sources of data are clearly required.

The problem is that the gathering of other such data is not only costly but impeded by myriad economic, social and political obstacles that complicate the smooth exchange of information on sensitive issues such as abuse and cannabis cultivation. The analysis of substance use is complex, due in part to its varieties, degree of secrecy, health challenges and different legal connotations surrounding its use globally (Isaac, Ogundipe, Amoo and Adeloye, 2018). In order to circumvent those obstacles, the UNODCCP resorted to means that target accessible groups that are: a) familiar with the general trends of immediate interest; and b) willing to express their opinions on the issue. In-country surveys, focus group discussions and first-hand observations by research teams were reached to provide a fuller picture of the drug problem in Africa. That picture was adequately interpreted from the perspectives of economic, social and political change (1999).

More recently, trafficking in heroin and cocaine has made narcotic drugs easily available across Africa despite the existing legal control measures. Complications arising from the use/abuse of psychoactive substances often draw public attention to their deleterious effects, which culminate in drug control policy formulation (Odejide, 2006). Amoo, Igbinoba, Osarieme, et al (2017) have confirmed that there is a growing epidemic of tobacco, heroine and alcohol use among adolescents in the developing world, especially in southern Africa and in sub-Saharan Africa as a whole. The WHO report on substance use in southern Africa showed that negative consequences are common traits of substance use. These include sexual violence (e.g. rape), physical violence, criminal activity, neglect of social responsibilities, disease, injury and loss of life. Harmful effects occur with any psychoactive substance use and early initiation has been found to be

associated with an increased risk of developing addiction and adulthood dependence. In general, it has been shown that the use of cigarettes, alcohol and other substances is a worldwide threat that affects young people.Indigenous (principally cannabis), cocaine and heroin, synthetic (methaqualone, amphetamine, LSD, Ecstasy) and other (including licit substances such as solvents used for narcotic purposes) are classified as indigenous drugs in Africa, (Abasiubong, Idung, Udoh, &Jombo, 2014).

Cannabis is grown and consumed in most African countries. In the study conducted by ODCCP (1999), it was discovered that out of the ten 10 countries examined, Cannabis was the most consumed substance and its most common mode of consumption was smoking, though it was also processed into cannabis paste (by pounding the plant and adding water), "hashish" (by scraping the resin off the leaves and then compressing) and cannabis oil (distilled from the seeds). Processed cannabis derivatives are added to various foods and beverages in Ghana, Nigeria and Zimbabwe, including local gin or akpeteshie in Ghana to give a narcotic version of "bitters" (the generic term for akpeteshieflavoured with herbs) (Mba, 2008). In Zimbabwe, particularly in the Binga area where consumption is traditional, cannabis can also be taken as an infusion. Cannabis is also smoked in a mixture with cocaine, crack cocaine or heroin in Cameroon, Ghana, Nigeria and South Africa. In South Africa it is also mixed with crushed methaqualone tablets – known as "white pipe" – a practice that now appears to have spread to Mozambique. Cosmetic (especially for hair) and medicinal preparations using cannabis are reported for Cameroon and Nigeria (ODCCP, 1999).

Social Media and Substance Use

Attested by most media researchers is the fact that the media environment makes interconnection as easy as possible. Njoroge (2011) posits that interactivity is the bane of the new media. The social media which is considered more recent increased opportunities for both marketing and social transmission of risky products and behavior. Kaplan and Haenlein (2010) mentionedthat while getting acquainted with friends on the social media, adolescents become exposed to deviant characters which are harmful to their well-being. Adolescents and young adults are uniquely vulnerable to the influence of social media in particular and digital communication in general: they are at once early adopters, nearly ubiquitous users, and highly susceptible to peer-influences. Alcohol use in adolescents and young adults is of particular concern because it is involved in many forms of injury, both unintentional (e.g., motor vehicle crashes, violence victimization) and intentional (e.g., self-inflicted injury). Past studies have described content and posting timing of alcohol use on sites such as MySpace, Facebook, and Twitter (Flory, Lynam, Milich, Leukefeld& Clayton. Moreno, Briner, Williams, Brockman, Walker & Christakis, 2010).

In particular, displays of alcohol use on social media have been found to be indicative of personal use among young people and are likely to enhance normative perceptions among followers of those posts.

Promotion of alcohol products is also evident on social media. Several alcohol brands have a presence on social media, giving them the opportunity to connect with young people and develop brand loyalty (Jernigan &, Rushman, 2014). Although marketing programs may require age verification before allowing users to access online content, those restrictions are difficult to enforce and can easily be sidestepped, (Litt& Stock, 2011).

Although not much is known about the online presence of content concerning illegal drugs, there is however growing evidence that marijuana use has increased among both adults and young people. Azofeifa, Mattson, Schauer, McAfee, Grant &Lyerla, (2016) state that the increasing legalization of marijuana in United States for instance will undoubtedly add to its presence online. While marijuana advertising on social media is currently not allowed, marijuana businesses can create "business pages" to promote content and engage with users on social media, and these business pages are accessible to social media users of any age.
A study has examined the presence of marijuana messages in social media, with a focus on Twitter, an online social messaging system that is increasingly popular with young people (Lenhart, 2015). The author of the study found that most of the messages contained favorable sentiments about the substance and that 59% of those tweets were estimated to be sent by youth less than the age of 20. Many of the senders of these messages had large numbers of followers, suggesting that such messages can reach and influence large networks.

Social media Involvement

User-generated content that promotes substance use (eg, positively commenting on pictures of illicit drugs, Babb, 2014) is prevalent across market-leading social media platforms, such as Facebook, Instagram and Twitter (Hoof, Bekkers&Vuuren, 2014). Such content can diffuse rapidly and widely through easily accessible network ties within and across media platforms. Capurro, Cole, Echavarría, Joe, Neogi and Turner, (2014), conducted a systematic review of 73 studies that used social networking sites to understand various public health issues, including sexual risks and mental health. The review reported that 86% of the reviewed studies described user-generated content and served as passive observational investigations for surveillance on target health events among hard-to-reach populations. Their review also implied that researchers are increasingly leveraging social media platforms and data within the domain of various public health issues, thus directly benefitting from the prevalence of user-centered data that indicate risky health behaviors and psychological states. This systematic review, however, did not report research that focused on social media big data–based findings for prescription drug addiction.

Moreno, Parks, Zimmerman, Brito&Christaki, (2009) conducted a study and found out that 41% of young adult participants had pictures or messages referencing alcohol, tobacco, or other drug use in their publicly accessible social media profiles. When social media users are frequently and repeatedly exposed to or involve in such substance-promoting communications, they may become more accepting of or immune to these risky behaviours. As noted in media and social influence frameworks, drug-use promotional communications on social media that are shared across social network ties can influence the exposed users to normalize the frequency of these behaviours and, as a result, may change their attitudes toward or risk perceptions of these substances (Gunther and Storey, 2003). A national survey of US adolescents found that 40% of all teens in a nationally representative sample had seen pictures on social media depicting other teens getting drunk or using tobacco or illicit drugs (National Survey of American Attitudes on Substance Abuse XVI, 2017). This National Survey of American Attitudes on Substance Abuse also found that, adolescents who reported seeing pictures of peers using substances on social media were more likely to use substances than were those who had never seen this peer-generated content on social media.

Social psychology and media communication theories explain this link between content exposure and an increased willingness to engage in the behavior being promoted. For example, cultivation theory as propounded by Bandura (2004) postulates that frequent media exposure to risky behavior influences the belief that the mediated version of reality is real, leading to overestimation of the frequency and prevalence of those risky behaviours in the real world. This distorted perception of reality leads people to accept risky or detrimental behaviours portrayed in the media, such as substance use, as relatively normal (Ajzen and Fishbein, 1977). Social learning theory (Bentley, Brien and Brock, 2014) further buttresses the claim that observing risky behaviours via social media can influence people to mimic behaviours or adopt specific values and thoughts. Bandura's social learning theory (Bandura, 2004) posits that media communication can considerably promote changes in human beliefs and behaviours by "informing, enabling, motivating, and guiding" the audience.

Social media communication platforms allow substance users to connect with a wide array of social networks and readily accessible substance use–related content. A news feed on a social media site can become a platform that constantly provides both personalized and socially infused content for social modelling and mimicry. These socially mediated learning processes on social media underscore the importance of considering the consequences (eg, mimicry) of routine exposure to content that is positively framed for and, indirectly or directly, promotes problematic drug use (Kim, Marsch, Hancock, & Das, n,d).

Social Media and Drug Market

Solis (2015) discovered that social media affect drug markets in two ways. The first is on the supply of drugs where opportunities are provided for the buying and selling of drugs (direct impact). The second impact is on the market itself. This is done by influencing the demand for drugs in general and for individual drugs, for example, the impact of drug-related experience sharing, drug-themed photo and video sharing, and drug-focused opinion forming (indirect impact). There are, nonetheless, a small number of research studies exploring social media and drug markets. Where research on social media does address drugs, it tends to be in the fields of behavioural health, epidemiology and public health. This particular research therefore focuses on the influence of drug-related social media content on young people's attitude towards drugs as well as the demand for drugs rather than on the supply of drugs through social media channels. Even though there is growing concern on the impact of greater exposure to drug-related content on demand for drugs, particularly among young people, the evidence of its impact remains scarce (Thanki& Frederick, 2016). Another study has revealed that the traditional media coverage of drugs can increase interest in buying drugs (Forsyth, 2012). There however, remains an insufficient evidence to provide us with a good understanding of the impact of drug-related content on social media and the attitude of young people towards the demand for drugs.

As noted by O'Neill (2013), at present, research studies looking at a specific social media application are more common in peer-reviewed journals (as well as in 'grey' literature). These often focus only on the existence of drug-related content rather than its impact, generally on the premise that this content increases the demand for drugs. However, a more recent study has discovered that beyond the influence of the drug-related content, the social media environment is an environment conducive for several other activities (either on the surface or in the deep web) (Millano, Margiani, Fattore, & De Luca, 2018).

Social media can facilitate the initiation into substance abuse in diverse ways. One way is that

users can directly advertise drugs for sale. In 2014 for instance, drugabuse.com published an infographic documenting drug dealer activity on the picture-and video-sharing service Instagram (drugabuse.com, 2014). By searching for hashtags relating to drug sales, the researchers were able to identify 50 drug dealer accounts in a day. Many contained photographs of drugs for sale. Social media were used to advertise the drugs for sale, but the transactions took place through other communication channels, such as mobile phones or messaging apps, which often allow users to remain anonymous. However, the researchers found that more than one-third of the drug dealers identified displayed a photograph of their face. There have also been numerous media reports of dealers caught by law enforcement agencies after posting details of their drug dealing activities through personal social media accounts, for example through Facebook accounts. Some researchers have begun to use web analytics to discover the presence of drugs for sale on social media.

In the works of Burns, Roxburgh, Bruno and Buskirk (2014), it was recorded that on social media, some psychoactive substances were supplied but labelled as "not for human consumption" and sold as plant fertilizers, incense, bath salts, or with other aliases in order to avoid legislative controls". The deep web or dark net (Millano, et al, 2018) plays a pivotal role in ensuring super safe drug dealing as buyers and sellers anonymously engage in business transaction in the provision of drugs and the payment via virtual wallet, (Smith, Sutcliffe, and Banks, 2015). Essentially, a few clicks are enough to supply highly psychoactive substances, cheaply and in a low-risk way (Fattore& Beyond, 2011 as cited in Millano et al). It was also detected that there is a mobile application known as Cannabis Mobile Apps which are designed for the transaction of cannabis (Ramo, Popova, Grana, Zhao & Chavez, 2015). This therefore suggests there is an open access to the purchase of psychoactive substances especially amongst the young people who easily find their way around smartphone applications, in complete anonymity and easily avoiding law enforcement.

Besides that, in order to understand the activities going on diverse social platforms about psychoactive substances, Cavazos-Rehg, Krauss, Sowles and Bierut (2016) carried out a study on Marijuana related posts on Facebook and Instagram. They found out that a simple look through the Facebook is possible to grant curious youth the information sufficient enough to link him to a seller or join groups where purchasing decisions are influenced positively. They also noted that the picture- and video-sharing service Instagram, notwithstanding its different use compared to the most famous Facebook, is used to search for new possible customers (Cavazos-Rehg, et al, 2016). More than a few indefinite profiles are used to post pictures of their products with hashtags such as #cannabiseeds, #headshop, #herbalicense, and #over18sonly (Duffy et al, 2008)

Social Media and Depiction of Psychoactive Substance

According to Davies, Elison, Ward and Laudet (2015), Lifestyle choices and social networks can often influence one's substance use risk. The widespread use of social media platforms provides the need to understand its contribution to participants' substance use or abuse. Social media images can explicitly depict substance use (e.g., consumption, inebriated behavior) as well as related social (e.g., party attendance), and environmental factors (e.g., bottles, syringes, pills). It is estimated that one-third of young adults on social media have posted content depicting substance use online (Morgan, Snelson, Elison-Bowers, 2010). Social media

posts thus represent potential samples of substance use risk factors and their associated social and environmental elements.

As of September 2017, Instagram for instance has 800 million monthly active users most of which are adolescents (Etherington, 2017). Instagram is the second most popular social networking app in the United States (Verto Analytics, 2018). The current massive user-base, combined with rapid rates of growth, popularity among younger users, and a highly accessible application program interface (API) make it a natural choice for this study. Social media users share information about themselves by posting images and text contents, which provides data for substance use risk analysis. Social media profiles can depict sanitized versions of users, driven by self-promotion and social desirability (Ellison, Steinfield& Lampe, 2007). Social Media usage provides new opportunities for exposure to unhealthy substances (Montgomery & Chester, 2009) because they are advertised more and more often on these media platforms.

The Policy Statement drafted by the Council on Communications and Media (2010) reflected that this is even more rampant amongst adolescents. The content that adolescents report viewing on social media usually concerns pictures and comments posted by their friends and researchers have found that as many as 25–37% of older young adults post details about their alcohol drinking (Moreno, Parks, Zimmerman Brito, & Christakis, 2009). The content of such posts may give adolescents the impression that substance use is a normative behavior among peers of the same age and older. Unlike the adolescents who are less exposed to the portrayal of alcohol, the adolescents who gain a positive impression towards alcohol use from older peers' Facebook profile are at higher risks of developing an attitude of alcohol use (Litt and Stock, 2011).
Social Media usage has become even more popular and common, even to the point of giving rise to a clinical disorder associated with abuse-like signs, such as an excessive, compulsive online social networking. Several authors have claimed in recent times that this becomes a sort of behavioral addiction Andreassen (2015), and some argue that addiction to social media sites has grown since the latest technologies (tablets, smartphones) arrived on the scene.If social media postings contain information indicative of risk, it is highly probable that this information could initiate substance use or abuse. However, the platform could also serve as a place of outreach, where future therapeutic services could interface with individuals who may benefit from them.

Drug Forums

There are quite a number of forums dedicated to the discussion of illicit drugs. Some of them are: Erowid, Drugs-forum, Bluelight.ru and others. Notably, most research has explored the harm reduction aspects of these forums, with the most of the users claiming that the purpose of accessing the site is to mainly learn about the negative aspects of prescriptions in order to know how to use them more safely (Chiauzzi et al., 2013). However, research often highlights the opportunity to use forums for targeted prevention (Soussan and Kjellgren, 2014). Nevertheless, there are concerns that the forums' content could encourage experimentation with a wider range of drugs and increase demand for certain substances. For example, information about how to extract active ingredients from drugs may increase demand for such substances. Conversely, bad trip reports on forums and warnings about individual substances and methods of drug use may decrease demand for particular substances and influence types of use.

Furthermore, Dolliver (2015) identified Silk Road hub as the most famous platform. In October 2013, Silk Road hub was shut down by the Federal Bereau of Investigation (FBI) but reappeared in a month's time under the name Silk Road 2.0 in order to supply to demanding customers. The Silk Road 2.0 was also shut down November 2014 but finds its way back on line in May 2016 and currently available now with the tag name "Silk Road 3.0" Moreover, in recent years, many cryptomarkets became available for buying and selling New Psychoactive substances (NPS), including Dream Market and others such as Alphabay, Nucleus, and Valhalla, which were shut down in 2016 and 2017, respectively (Hout&Hearne, 2017). In addition, a collection of data from drug fora and blogs on the surface web shows that people who possess the knowledge for using the deep web are also able to access drug marketplaces and buy drugs, including several psychoactive substances (Orsolini, Papanti, Corkery&Schifano, 2017). Since the late 2000s, a number of studies have investigated the online supply of psychoactive substances through online shops, among which was the two-year, European Commission-funded "Psychonaut 2002 project", coordinated by FabrizioSchifano, that provided a quantitative and qualitative assessment of the online supply of psychoactive substance in a time-specific context (Schifano et al, 2006).

In a more recent study co-financed by the Drug Prevention and Information Programme of the European Union, the EMCDDA (2016) conducted another European project tagged "I-TREND (Internet Tools for Research in Europe on New Drugs). This was to monitor the evolution of online shops and online user fora. It was based on an online survey focused on psychoactive substance users, and, based on the analysis of samples and the exchange of reference standards among laboratories, which ultimately produced a "top list" of newly produced psychoactive substances at the national level (EMCDDA, 2016). Although there is limited evidence of the impact of forums on drug use behaviours, the ability to monitor discussions can be a useful tool for the identification of emerging trends in drug use and markets and to inform policy and practice (Davey et al., 2012).

Video and Picture Sharing

Studies have identified the YouTube as the most popular video-sharing site and sites like Flickr and Instagram as the most picture sharing sites (West et al, 2014; Cheng, Dale, & Liu, 2007). In addition, many other social media channels not specifically viewed as focused on picture or video sharing provide users with opportunities to share these types of media. Lau et al. (2012, as cited in Thanki and Federick, 2016) highlight the potential negative impact of social media content depicting behaviours such as drug use, although the authors suggest that further research is needed on how this online content is disseminated and how individuals process it. Other research (Manning, 2013) have also looked into the link between YouTube, drug videos and drug education. The study involved a content analysis of 750 drug videos (sampled from over 300 000 individual YouTube videos), of which 12 % had been posted by official agencies. The study found that a minority (16 %) of the drug-related videos on YouTube were commemorative (i.e., self-indulgent), but that these differed by drug, for example, no celebratory videos about heroin or crystal meth were found. Many cautionary videos (also known as 'vernacular prevention' videos) were also identified. 'Do-it-yourself' (DIY) videos (e.g. videos that provided instructions on how to grow your own cannabis) and legal high advertisements were also identified. The study concluded that official prevention campaigns should use more modern methods to reach individuals.

Undergraduates Attitude and Psychoactive Substances

Before the 60s, social psychology had failed to understand the attitude–behavior relationship; in 1963, however, Fishbein addressed this issue in a very progressive manner. His subsequent presentations of theory of reasoned action in 1980, and the theory of planned behavior in 1985 were an attempt to explain the impact of attitude on behavior (Baber et al., 2016). The term "attitude" has a long history and can be traced back to varies definitions. In everyday discourse, attitude is a term used by an individual to express views, concerns, perceptions, opinions or group of opinions, about a specific object or entity (Howarth, 2006). According to Eagly and Chaiken (1993), attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour. According to Fishbein&Ajzen (1975), attitudes can be described as a learned predisposition to respond in a consistently favorable or unfavourable manner with respect to a given object. Attitude is important because of its effect on purchase intention and behavior. To understand the constitutive role that the social media plays in what is seen as 'individual' behavior, we need a more radical change in terms of perspective. Lalljee, Brown and Ginsburg's (1984) notion of 'communicative acts' does move away from an individualistic focus by challenging two main assumptions of traditional attitude theory:

- Attitudes are internal dispositions that strongly influence behavior
- Attitudes are fixed and enduring (Howarth, 2006).

According to Rosenberg &Hovland 1960, attitude has three components, affect, behavior, and cognition, and these components are essentially the anatomy of an attitude. Affect refers to the positive or negative feelings that a person holds toward an attitude object. Here, attitude object refers to the entity being evaluated. Behavior refers to the actions and responses to the attitude object. And cognition refers to beliefs that a person has about an attitude object (Rosenberg and Hovland, 1960; Katz, 1960).Core to most definitions has been that attitudes reflect evaluations of objects on a dimension ranging from positive to negative. Thus, this study characterised attitude in terms of their valence and extremity.

Factors related with undergraduates use or abuse of substance is many and diverse. They include individual predispositions, family characteristics and complex social and environmental determinants. Quite a number of researchers and authors have shown that there are many contributing factors to drug abuse among students. Masibo, Mndeme and Nsimba(2013) in their study indicated that in a school setting, drug abuse affects the children of the rich as well as those from poor families. Shoemaker (1984 as cited in Okamoto, 2010) argues that drug abuse is caused by a blend of environmental, genetic, and psychological factors. Under environmental factors; the most influential elements include the family, peer association, school performance and social class membership.Whether peer pressure has a positive or negative impact depends on the quality of the peer group. Unfortunately, the same peer pressure that acts to keep a group within an accepted code of behavior can also push a susceptible individual down the wrong path, (Hassanpour, Tomita, DeLise, Crosier &Marsch, 2018).

Most of the studies that have been conducted on the issue of drug use and abuse, agree that there is a significant relationship between drug using behaviour and the involvement withfriends.If an adolescent associate with other adolescents who use drugs, the risk of involvement with drugs is further increased. Another survey of youths in southern Nigeria, also found out that the source of drugs for drug using-students was friends in the same or neighbouring schools, and students who

reported using drugs had more drug using friends than abstinent friends (Nevadomsky, 1982). Confirming this finding, Kiiru (2004), argues that peer pressure influences youth to use substances under the false impression that some drugs stimulate appetite for food, increase strength and give wisdom as well as courage to face life.

The National Teen Survey of the Washington, D.C (2011) found out that the American teens ages 12-17,who spentlong hours on social networking sites were at increased risk of smoking, drinking and drug use. The survey included questions on whether they spend time on Facebook, MySpace or other social networking sites in a typical day. 70% of them reported spending time on social networking sites in a typical day compared to 30% of teens who say they do not. In another study, Galvani (2015) found out that high school is not only a place where students can use drugs; but that many high schools have become drug supermarkets where students can gain easy access to drugs. Almost half of the school students (44 percent) know of a student who sells drugs at their school. Nearly all of them (91 percent) know someone at their school who sells marijuana, a quarter (24 percent) know someone who sells prescription drugs, one in 10 (nine percent) knows someone who sells cocaine and seven percent know someone who sells ecstasy.

Conclusion

It is fundamental to identify the meeting point between this public health threat and the future of media communications especially as it relates to the young adults who are continuously the focal point of the problem. Analyses of social media may represent a new approach to uncover and track changes in drug terms and markets in future studies. In conclusion, the psychoactive substance phenomenon is intricate and still very difficult to control. Using the same channels responsible for their growing diffusion to disseminate information and scientific knowledge about the risks associated with their use could represent a potential new approach to limit the diffusion of these dangerous substances. This study has discussed first of all, the concept of social media, its popularity and nature, most especially, how it promotes information sharing and youth connection. It also reveals health behavioural research findings that depict the influential nature of social media environment.

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