

# EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Research Article
ISSN 2394-3211
EJPMR

# PREDICTORS AND PATTERNS OF MARIJUANA USE AMONG ADOLESCENTS IN OWO LOCAL GOVERNMENT AREA, ONDO STATE

Ayeni Adebusola Raphael\*<sup>1</sup>, Ajibade B.L.<sup>2</sup>, Ayeni Bamidele A.<sup>1</sup> and Abiodun O.O.<sup>1</sup>

<sup>1</sup>Achievers University, Department of Nursing Science, Owo.

<sup>2</sup>Ladoke Akintola University of Technology, College of Health Sciences, Faculty of Clinical Sciences, Department of Nursing Science, Osogbo.

\*Corresponding Author: Ayeni Adebusola Raphael

Achievers University, Department of Nursing Science, Owo.

Article Received on 11/12/2018

Article Revised on 31/12/2018

Article Accepted on 21/01/2019

#### **ABSTRACT**

Utilization of illicit drugs in Nigeria have become a menace in our society which had equally aggravated the antisocial behaviours among the young and the old. This had tremendously increased the numbers of mentally ill individuals in the nation. Hence, this study employed cross-sectional survey of quantitative research design to explored predictors and patterns of marijuana use among adolescents in Owo Local Government Area, Ondo State. The objectives of the study are to: assess adolescents' level of knowledge about marijuana; assess the pattern of marijuana use among adolescents; examine the effect of socioeconomic status of parents on the adolescents' use of marijuana; Find out the influence of peer group on adolescents use of marijuana; determine the adolescents' perception of marijuana as a drug of social influence. Multistage sampling technique were used to select 432 respondents from four district/areas of the local government. Self designed semi-structured questionnaire was used in data collection that spanned seven month, and data were analyzed with descriptive and inferential statistics. The result revealed that majority of the respondents were introduced to marijuana by friends. However, it was also revealed that most respondents disagreed that adolescents from rich parents smoke marijuana more than those from poor parents. In addition, majority of the respondents admitted that marijuana is used to withstand stressful situation and obtain relief from social pressure. It was also revealed that marijuana as a drug has some therapeutic benefits to the body. In conclusion, utilization of marijuana among adolescents has become rampant to the extent that respondents believed on the positive effects without considering the long term negative effects of marijuana use.

KEYWORDS: Predictors, Pattern, Adolescent and Marijuana Use.

# INTRODUCTION

Utilization of illicit drugs in Nigeria have become a menace in our society which had equally aggravated the antisocial behaviours among the young and the old. Recently, codeine was put on hold in Nigeria because the consumption among the youth was so high in which the health ministry believe that the future outcome would not be palatable with the nation's productivity. It was posited on Nigerian daily's that over 500,000 bottles of codeine are consumed by young Nigerians across the country (This Day Nov, 2017). Marijuana, according to the 2015 National Survey on Drug Use and Health, is the most commonly used illicit drug. Its use is more prevalent among men than women—a gender gap that widened in the years 2007 to 2014 (Carliner, Mauro, Brown, Shmulewitz, Rahim-Juwel., et al, 2016). The prevalence of marijuana use in Nigeria remains frictions of time depending on different environment in which the study is being conducted. Alabi (2012), in his submission estimated that over 1.5 million adolescent youth's smokes marijuana in Nigerian higher institutions and an

estimated number of 2.5million adolescent youths in various communities use marijuana. Considering a fifth adolescent in Nigeria population, Nigeria Demographic profile (2018) reported population of 190,632,261 out of which 38,126,452 were between the age 10 and 19.

Marijuana use in Ondo state Nigeria, has become more popular because the cultivation (Seshata, 2013) and locally processing gained the heart of many youths due to high capital returns, unemployment and steady galloping inflation rate coupled with political instability. Despite being controlled by law enforcement agents like NDLEA and other para-military. The utilization does not limited to the producing state in Nigeria alone it has become a global issues. It was posited that, in US, marijuana is the most prevalent drug in use. About 66% of the 2.9million individuals who initiated use of illicit drugs in 2012 stated that marijuana was first drug used, with an average age of commencement at 17.9 years (Substance Abuse and Mental Health Services Administration, 2012).

Drug use is a complex, behaviour influenced by multiple biological, family and socio cultural factors. The concurrent use/misuse of multiple drugs has become a daily occurrence among people with other psychiatric conditions (Khroyan et al, 2004). It is clear that abnormal behaviour induced by the use of psychoactive drugs plays a significant role in violent crimes which are completely unrelated to either drug profits or trafficking. However, no segment of the society is immune from substance use in modern social context. Obviously, better detection and treatment programs are necessary for the prevention and control of substance abuse, which impairs medical judgment and places patients interest at great risk.

Marijuana use among adolescents has tripled recently, although, smoking is used as a coping tool in response to stress. Use and abuse of substance such as marijuana may begin in childhood or the adolescence period, certain risk factors may increase someone's likelihood to abuse substance.

Moreover, factors within a family that influence a child's early development have been shown to be related to increased risk of marijuana abuse (Brown 2004). Also, chaotic home environment, ineffective parenting and lack of nurturing and parental attachment may go a long way in increasing adolescent's flair for marijuana abuse. Worthy of note, are factors related to a child's socialization outside the family which encompasses inappropriately aggressive or shy behaviour in the classroom, poor social coping skills, poor school performance, association with a deviant peer group among others are other risks — producing/motivating behaviour in adolescents' tendency to increase the incidence of marijuana use.

Many studies have been conducted on the incidence and extent of use of marijuana by adolescents leaving a dearth of what informed the use of marijuana among the adolescents in an environment where social delinquencies are predominant; hence this study aims at identifying the predictors associated with marijuana use among adolescents in Owo Local Government Area.

The study would make use of the following specific objectives to track predictors of marijuana use among the respondents

The study is designed to: -

- 1. Assess adolescents' level of knowledge about marijuana use.
- 2. Identify the pattern of marijuana use among adolescents in Owo LGA
- 3. Examine the effect of socio economic status of parents on the adolescents' use of marijuana.
- Evaluate the influence of peer group on adolescents' use of marijuana
- 5. Determine the adolescents' perception of marijuana as a drug of social influence.

### **HYPOTHESES**

i. There is no significant difference between adolescents from high social class and low social class in the use of marijuana.

ii. There is no significant relationship between peer group influence and marijuana use by adolescents.

## CONCEPTUAL FRAMEWORK

The cognitive theory of motivation (Thorndike, 1949, Gopalan, 2017) which was considered relevant in this study has "the expectancy theory and goal-setting theory". The Expectancy theory explains why and how an individual chooses one behavioural option over others, which is an ideals concepts in assessing and identifying factors that motivated adolescents' behaviour in marijuana use. The theory was derived from the dualistic theory of motivation and it states that motivation is a function of human cognitive processes associated with thinking, perceiving, memory, desiring, knowing, recognizing and judging these, lead an individual to form some expectancies that determine the way and manner that he will behave. In acting towards these expectancies, one becomes motivated.

The cognitive theory of motivation can be divided into 3 areas:

- 1. Cognitive dissonance area
- 2. Expectancy value area
- 3. Level of aspiration area

The cognitive dissonance areas implies that motivation arises from situations when an individual has developed an unbalanced cognition of a situation thus, when one attitude differs from the cultural norm that there will be cognitive dissonance and the individual consciously or unconsciously engages in charge of behaviour to correct the anomaly(Mcleod, 2018).

The expectancy value area of the cognitive theory assigns value or utility of importance to possible incentive. The importance attached to an incentive will determine the arousal force of the value towards incentive, in spite of risk involved.

The level of aspiration areas refers to the strength of achieving motives in the individual as directed towards a certain motivational target aspiration of a measure of possible chances of failure or success.

From the cognitive theory of motivation the following factors have been identified to influence one's behaviour, knowledge, level of aspiration and the importance of value attached to the phenomenon.

## **Importance Of The Concept To The Study**

The cognitive theory of motivation which deals with knowledge in relation to behaviour has a lot of importance to this study because it shows the interplay of multiple factors that motivate the adolescent into act of indulgence in marijuana use. These factors that are

regarded as motivational forces range from biological, family, socio-cultural factors which influence the thoughts, feelings, behaviours and knowledge of the adolescent.

Relating all these to this study, it can be concluded that for an adolescent to engage him/herself in the act of marijuana use, there is a need for knowledge about the substance which could be acquired through the interplay of multiple factors within the social system. Adolescents are more likely to use marijuana in response to disequilibrium in proper maintenance of social adjustment and development of coping mechanism. This situation may prompt an adolescent to indulge him/herself in an act that he/she believes can relieve him/her of the burden and in effect, makes every effort

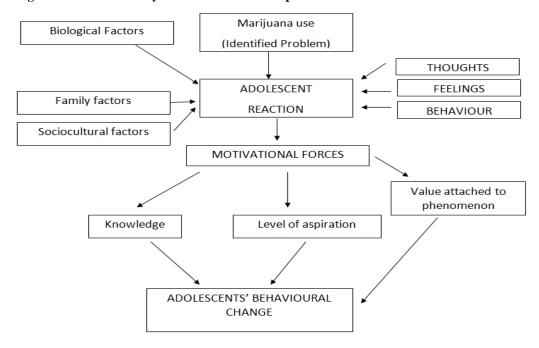
either consciously or unconsciously to get the desired substance (Marijuana) at all cost.

The adolescent being motivated by such act through peer influence attaches value or importance to this behavioural change directed towards consumption of marijuana with accompanied over craving effect in spite of the risks involved.

In conclusion, it can be deduced that the likelihood of an adolescent's behavioural change may be sequel to:

- i. The development of an unbalanced cognition
- ii. The value or utility of importance that the adolescent places on the substance (marijuana) which makes the individual prone to over-craving effect in order to satisfy the need in spite of the adverse effect on his/her health.

## Schematic Diagram To Illustrate Key Factors In The Conceptual Framework



## RESEARCH METHODOLOGY

The study employed cross-sectional survey of quantitative research design to explored predictors of marijuana use among adolescents in Owo Local Government Area, Ondo State. The target population are adolescents age 10 to 19 based on WHO classification, and during collection of data the respondents must be living in Owo LGA.

## Sample Size And Sampling Technique

The study employed a multistage technique to select 432 respondents for the study. Simple random sampling technique was used to select four out of seven district/areas based on the Owo local government list of towns and villages zip codes demarcations in accordance with Nigeria postal agency (2017). Systemic random sampling technique was used to select the houses in which every 10th of the houses was selected and 46 houses were selected in each district and convenient

sampling technique was used to select a respondent in every house, which may be either a male or a female to represent an adolescent until saturation was reached.

# **Development of Research Instrument**

The instrument for data collection was a semi-structured questionnaire that was developed by the researcher through literature search.

The questionnaire consists of three section viz A, B. and C.

Section A asked questions about respondent socio demographic variables.

Section B asked questions about knowledge reasons, and pattern of marijuana use (15 items).

Section C adolescents' disposition to identified factors associated with marijuana use.

## **Ethical Consideration**

Verbal consent to carry out the study was obtained from individual respondents. This enabled the researcher to elicit necessary information for the study. The reason for the study was explained to the respondents and they were assured that the confidentiality of information gathered from them would be duly maintained.

## Validity And Reliablity of The Instrument

The validity of the instrument was established through face and content validity technique by ensuring that the questions fully exhaust all that are implied by the research problems and hypothesis.

The reliability of the instrument was established by testre-test technique where the instrument was used to take two separate measurements within an interval of 14 days and results were compared for consistency.

RESULT Table 1: Respondents Sociodemographic profiles (n=432).

Characteristics	Respondents frequency	Percentage	X±SD
AGE IN YEARS			
10 – 13	120	27.8	
14 – 16	114	26.4	15 4 2 02
17 – 19	198	45.8	15.4±3.92
Total	432	100.0	
SEX			
Male	390	90.3	
Female	42	9.7	
Total	432	100.0	
TRIBE			
Yoruba	405	93.8	
Hausa	3	0.7	
Irobo	9	2.1	
Igbo	9	2.1	
Igbira	6	1.3	
Total	432	100.0	
RELIGION			
Christianity	342	79.2	
Islam	84	19.4	
Traditional	6	1.4	
Total	432	100.0	
OCCUPATION			
Schooling	144	33.3	
Apprenticeship	87	20.1	
Trading	45	10.4	
Artisan	126	29.2	
Farming	30	7.0	
Total	432	100.0	
<b>Educational Qualification</b>			
No formal Education	39	9.0	
Primary	111	25.7	
Secondary	195	45.1	
Tertiary	87	20.2	
Total	432	100.0	
Family Structure			
Monogamy	333	77.1	
Polygamy	99	22.9	
Total	432	100.0	
PARENTS' MONTHLY INCOME			
Below N5,000	108	25.0	
N6,000 - N10,000	159	36.8	
N11,000 – N20,000	36	8.3	
N21,000 - N30,000	51	11.8	

Above N31,000	78	18.1	
Total	432	100.0	
MARITAL STATUS			
Single	393	90.9	
Married	39	9.1	
Total	432	100.0	

The table above revealed that 44.0% of the respondents were within the age range 17 – 19 years; 27.8% fall within 11 – 13 years; 26.4% were within 14 – 16 years; however, the mean age of the respondents were 15.46±3.94. More so, the respondents were 90.9% and 9.1% males and females respectively. In revealing the tribe of respondents, 93.8% were Yoruba; 0.7% were Hausa; 2.1% were Irobo and Igbo respectively. The remaining 1.3% were Igbira. Similarly, 79.2% of the respondents were Christians, 19.4% were Muslims while 1.4% were traditional believers. Also, 33.3% of the respondents were still schooling; 20.1% were apprentices; 29.2% were artisans; 10.4% were traders; 4.2% were farming and the remaining 2.8% did not specify what they do for a living.

In addition, the educational status of respondents revealed that 45.1% have secondary education; 26.7%

have primary education; 20.2% have post-secondary education; while 9.0% have no formal education.

Most of the respondents were from monogamous family constituting 77.1% and 19.4% were from polygamous family while the rest 3.5% were silent on their family structure.

The parent's income earning on monthly basis revealed as follows: 36.8% earned between N6, 000 – N10, 000; 25% earned below N5, 000; 18.1% earned above N31, 000; 11.8% earned between N21, 000 to N30, 000 and the remaining 8.3% earned between N11, 000 – N20, 000. Marital status of the respondents revealed that 90.9% were single; while the remaining 9.1% were married.

Table 2: Respondents' knowledge, pattern, reasons for marijuana use (n=432).

Responses	Frequency	Percentage
KNOWLEDGE OF MARIJUANA		
Yes	432	100.0
No	-	-
Total	432	100.0
SOURCE(S) OF INFORMATION		
Parents	36	8.3
Siblings/Relations	75	17.4
Friends	264	61.1
Social Media	57	13.2
Total	432	100.0
PREVIOUS USE OF MARIJUANA		
Yes	372	86.1
No	60	13.9
Total	432	100.0
AGENTS OF INITIATION		
Self	90	20.8
Friends	264	61.1
Relations	36	8.3
Parents	42	9.8
Total	432	100.0

Table 2 revealed that all the respondents have heard about marijuana use. However, 61.1% of the respondents got to know about marijuana through friends; 17.4% got the information through siblings/relations; 13.2% through social media, while the remaining 8.3% got the information about marijuana through parents. Similarly, it was revealed that 86.1% of the respondents have smoked marijuana before; while 13.9% have never tasted marijuana.

Furthermore, most of the respondents revealed that friends rank highest among the initiating agents into marijuana use constituting 61.1%, 20.8% of the respondents chose self; 9.8% of the respondents admitted that parents are initiating agents; while remaining 8.3% chose relations as agents of initiation into marijuana use.

Table 3: Responses on reasons for taking marijuana (n=372).

Responses	Frequency	Percentage	
HIGHLIGHTED REASON			
To have confidence	54	14.5	
Because of Sexual Enhancement	33	8.9	
Because of pressure at Work	240	64.5	
For social reasons	45	12.1	
Total	372	100.0	

Table 3 showed that 64.5% of the respondents take marijuana to relieve pressure at work; 14.5% take marijuana so as to have confidence in themselves; 12.1%

take marijuana for social reasons; and the remaining 8.9% take marijuana to increase their performance during sexual intercourse.

Table 4: Responses on pattern of taking marijuana (n=372).

Pattern of frequency	Respondents' frequency	Percentage
On daily basis	174	46.8
On weekly basis	102	27.4
On monthly basis	45	12.1
Occasionally	51	13.7
Total	372	100.0

Table 4 posits that 46.8% of the respondents take marijuana on daily basis; 27.4% take marijuana on

weekly basis; 13.7% take marijuana occasionally; while 12.1% take marijuana on monthly basis.

Table 5: Responses on respondents' accomplice in marijuana use (n=372).

Accomplice	Respondents' frequency	Percentage
Friends	246	66.1
Relations	21	5.7
Parents	12	3.2
Self	93	25.0
Total	372	100.0

Table 5 revealed that 66.1% of the respondents took marijuana with friends; 25.0% take marijuana alone.

5.7% take marijuana with relations; while 3.2% take marijuana with parents.

Table 6: Responses on identified factors associated with marijuana use (n=432).

Statement	Agree	Disagree	Indifferent	Total
Adolescents from rich parents smoke marijuana more than those from poor parents.	90(20.8%)	276(63.9%)	66(15.3%)	432(100%)
Marijuana is smoked to withstand stressful situations	264(61.1%)	102(23.5%)	66(15.3%)	432(100%)
Social media plays a key role in increasing incidence of marijuana use among adolescents	370(85.7%)	42(9.7%)	20(4.6%)	432(100%)
Peer group influence is a major determinant in marijuana use by adolescents	315(72.9%)	72(16.7%)	45(10.4%)	432(100%)
Smoking of marijuana is a good measure of level of socialization in adolescent	273(63.2%)	99(22.9%)	60(13.9%)	432(100%)
Marijuana as a drug has some certain benefits to the body	234(54.2%)	135(31.3%)	63(14.5%)	432(100%)

Table 6 revealed the disposition of respondents to identified factors associated with marijuana use. 63.9% of the respondents did not agree that adolescents from rich parents smoke marijuana more than those from poor parents. However, 61.1% of the respondents agreed that marijuana is smoked to withstand stressful situations. Also, 38.2% of the respondents agreed that mass media plays a key role in increasing incidence of marijuana use

among adolescents. Furthermore, 72.9% of the respondents supported the fact that peer group influence is a major determinant in marijuana use by adolescents. In addition, 63.2% of the respondents agreed that smoking of marijuana is a good measure of level of socialization in adolescent. Also, 54.2% of the respondents agreed that marijuana as a drug has some certain benefits to the body.

## TEST OF HYPOTHESES

H<sub>0</sub>1: Test of relationship between social class and marijuana use by adolescents (n=432).

	Marijuana use		
Parental income (per month)	Yes	No	Total
Below N5,000	60	30	90
N6,000 - N10,000	75	27	102
N11,000 - N20,000	51	24	75
N21,000 - N30,000	54	27	81
Above N31,000	66	18	84
Total	306	126	432

 $X^2 = 4.522$ ; Df = 4;  $X^2 > 3.3570$ ; P = 0.50

Therefore, the hypothesis which says "There is no significant difference between adolescents from high social class and those from low social class in the use of

marijuana is rejected ( $X^2 = 4.522$ ; P = 0.50. Not sig.,  $X^2 > 3.3570$ ).

H<sub>0</sub>2: Test of relationship between peer group influence and marijuana use (n=372)

	Marijuana Use		
Agent of initiation into marijuana use	Yes	No	Total
Self	67	21	88
Friends	91	47	138
relations	56	15	71
parents	52	23	75
Total	266	106	372

 $X^2 = 5.0906$ , DF = 3, P =  $0.50 (X^2 > 2.366)$ 

Therefore, the hypothesis which says "There is no significant difference between peer group influence and marijuana use by adolescents is rejected ( $X^2 = 5.0906$ ;  $X^2 > 2.366$ ; P = 0.50. Not sig.)

# DISCUSSION OF FINDINGS

Use of illicit drugs such as marijuana appears to be increasing across most of the adolescent age span and this increase is a worldwide spread. Marijuana is the most commonly used illicit drug in the United States. (Substance Abuse Centre for Behavioural Health Statistics and Quality, 2015). The result from this study showed that the mean age is 15.4±3.94 about 26.5% of respondents. In 2015, the results of a survey conducted in United State show that adolescents ages 12-17 and young adults ages 18-25 have much higher marijuana use rates in comparison to adults age 26 and older (Centre for Behavioural Health Statistics and Quality 2015), which is in tandem with the mean age of this study. It was also in line with the report that marijuana use among the adolescents had increased by four percentage points (19% to 23%) from 2007 to 2017 (Johnston, O'Malley, Miech, Bachman & Schulenberg, 2017, Schulenberg, Johnston, O'Malley, Bachman, Miech, & Patrick, 2017). It was equally posits that accessibility of marijuana by adolescent is very easy and virtually trouble-free (Johnston et al., 2013). Some adolescents enjoy the effect of marijuana and become intoxicated, they consume it rapidly to obtain a high emotional state and rely solely on it as a defence against depression, anxiety, fear, pain and anger (Gofroerer, 1997). This selective medical benefit still in continuous research by National Academies of Sciences, Engineering, and Medicine (2017) concluded that there is moderate to substantial

evidence supporting marijuana use as an effective treatment for chronic pain, alleviating chemotherapy-induced nausea and vomiting, improving spasticity symptoms among patients with multiple sclerosis, and improving short-term sleep outcomes among those with obstructive sleep apnoea syndrome.

In another dimension, Table 2 revealed that most respondents got to know about marijuana use through friends. This finding agrees to the submission that during adolescence, peer become a major influence in marijuana use. Peer pressure can be a tremendous force causing someone to try things they would normally not try on their own because of increased time spent with them outside of the home. Some teens feel pressured to fit in and do what their friends are doing. Friend substance use is one of the most robust predictors of adolescent cigarette and alcohol use (Brechwald & Prinstein, 2011, Knecht, Burk, Weesie, et al., 2011), but fewer studies have examined these socialization effects on marijuana use and the evidence has been mixed (Poulin, Kiesner, Pedersen, et al., 2011). Popular adolescents are more likely to use marijuana and other substances (Tucker, Green, Jr., Zhou, et al., 2011), and to influence behavioural norms within their peer groups (Dijkstra, Lindenberg & Veenstra, 2008). Consequently, teens that have friends who use drugs are more likely to use drugs themselves (Brook, 2001). The study also showed that majority of the respondents have smoked marijuana before, since the ages of respondents that took part in the study ranged from 10 – 19 years, this finding embraces the fact that teen who begin using illicit drugs before the age 15 are more likely to develop a lifelong dependence on illegal substances (Kipke, 1999).

The study also revealed that the parents of most respondents are low income earners (Low Social Class), this is associated with the nation's economic meltdown and therefore, the hypothesis which says that there is no significant difference between adolescents from high social class and those from low social class in the use of marijuana is accepted. This is so because, in previous studies, risk factors that have been identified range from poor parent-child relations irrespective of socio economic status; family environments that model drug use; high risk communities; low self-esteem which could arise from lack of support and encouragement from others irrespective of social class (Anthony, 1995). Friestad, Pirkis, Beihl & Irwin (2003) found that low parental education and moderate household income was associated with greater rates of smoking in adolescents. Also, the results of cross-sectional survey of cannabis use among French adolescents shows that the low family socio-economic status has positive odd ratio on high cannabis use and that adolescents from high family socioeconomic status involved more on experimental cannabis use (StÊphane, Beck, Myriam, Patrick & Nearkasen, 2012). The fact remains the cost of cannabis in French speaking countries might be enormous compare to the setting of this study where planting and processing of marijuana served as a means to an end. The results in this paper are somewhat contrary to previous literature in youth which has shown that lower SES is associated with higher rates of substance use problems (Hamilton, Noah & Adlaf, 2009).

Also, it was discovered that the hypothesis which says that there is no significant relationship between peer group influence and marijuana use is accepted, as most living in high risk neighbourhoods or involved in a peer drug use are more inclined toward marijuana use (Chatila, 2004). In furtherance to this, race, education, overall exposure to various social institutions, peer association and family life all affect the likelihood of an individual to engage in marijuana use (Hamas, 2017). More to the above findings, the respondents expressed some positive effects of smoking marijuana ranges from relieving pressure and pain, as well as helps in performing adequately on daily work (Table 3). In these conceptualizations, Marijuana and cannabinoids (the active chemicals in marijuana that cause drug-like effects throughout the body, including the central nervous system and the immune system). The main active cannabinoid in marijuana is delta-9-THC. Another active cannabinoid is cannabidiol (CBD), which may relieve pain and lower inflammation without causing the "high" of delta-9-THC (Centre for Disease Control and prevention, 2018). Although marijuana and cannabinoids have been studied with respect to managing side effects of cancer and cancer therapies, there are no ongoing clinical trials of marijuana or cannabinoids in treating cancer in people (Hancox, Shin, Gray, Poulton & Sears, 2015). A few studies have found that marijuana can be helpful in treating neuropathic pain (pain caused by

damaged nerves) (National Academies of Sciences Engineering, and Medicine, 2017). However, more research is needed to know if marijuana is any better or any worse than other options for managing chronic pain. The study also revealed that marijuana is smoked to withstand stressful situations (Table 6). The Harvard University researchers revealed that low doses of marijuana or cannabis probably reduced anxiety, which improve the marijuana user's mood and act also as sedative (Harvard Health blog; Medical Marijuana, 2018).

It was discovered that majority of the respondents agreed that marijuana as a drug has certain benefits to the body (Table 6). This is was in line with previous study which poise that pain relief may be most widely known medicinal effects of marijuana, whether the pain is related to the arthritis, fibromyalgia, cancer or another acute or chronic condition, marijuana has long track record of providing relief. It was recently been shown to decrease the frequency of migraine headache (Rhyne, Anderson, Gedde & Borgelt, 2016). However, this might be the reason why the peer group enhances the marijuana use because it is possible for them to communicate the benefits of marijuana to each other after utilization. Hence, the rejection of null hypothesis which stated that there is no significant relationship between peer group influence and marijuana use. But nevertheless, the submission of beneficial effects is opposed by research that within a few minutes of inhaling marijuana smoke, users likely experience dry mouth, rapid heartbeat, some loss of coordination and poor sense of balance and slower reaction times, along with intoxication, which are being considered as negative consequences. Tetrahydrocannabinol (THC) which is the potent active chemical in marijuana suppresses the neurons in the information processing system of the hippocampus, the part of the brain that is crucial for learning, memory, and integration of sensory experiences with emotions and motivation. Also, it has been discovered that someone who smokes marijuana regularly may have many of the same respiratory problems that tobacco smokers have. These individuals may have daily cough and phlegm, symptoms of chronic bronchitis, and more frequent chest colds (Hancox, et al., 2017) Adolescents may use marijuana because they believe it is not as harmful as tobacco, but they should know using marijuana can have a lasting impact on their brain. Research suggests that the effects on attention, memory, and learning can be longterm and even permanent in people who begin using marijuana regularly as adolescents (National Institute on Drug Abuse, 2017).

## **SUMMARY**

This study employed cross-sectional survey of quantitative research design to explored predictors of marijuana use among adolescents in Owo Local Government Area, Ondo State. Semi-structured questionnaire was the major tool used to collect data from 432 respondents covering four out of seven

district/areas using multistage sampling technique. The instrument was developed through extensive literature search. Data collection took seven months and data collected were analyses using descriptive statistical technique like frequency and percentages with inferential statistical technique like chi-square.

This study revealed that respondents take marijuana to relieve pressure and withstand stressful situations. Also, respondents were introduced to marijuana by friends and peer influence predominates as a basic essential factors that influences adolescents in marijuana use.

However, majority of the respondents disagreed that adolescents from rich parents smoke marijuana more than those form poor parents.

#### CONCLUSION

This study had revealed that most respondents took marijuana to relieve pressure and withstand stressful situations. Most of the respondents submitted that they were being initiated into marijuana use by friends. Majority of the respondents agreed that peer group influence is a major determinant in marijuana use by adolescents. Also, greater percentage of the respondents has taken marijuana before and would like to take the substance with friends and that the largest population of the respondents disagreed that adolescents from rich parents smoke marijuana more than those from poor parents.

Conclusively, study also revealed that respondents believed that marijuana as a drug has certain benefits to the body which informed more utilization by them.

## **Implication of The Study**

The effects of drug use vary by type of drug and frequency of use, however, early drug use has been linked to positive attitudes towards drug use. Consequently, teens that begin drug use early are at risk for continued drug habits into and through adulthood.

In actual fact, this study had revealed that a lot is at stake for health care professionals to improve health, hasten recovery from illnesses and prevent complications associated with marijuana use among adolescents. Communication is key in dealing with any type of risk taking behaviour during the teen years.

This is where nurses can support parents in making such a vital difference. This could be in form of keeping up to date with the interests of teens and friends which is an important step in creating a warm, communicative and open environment.

In clear terms, teens must be reminded that they have the power of choice to make good decisions about their future considering their life goals and how marijuana use can hinder them from reaching them. In developing Information education and Communication (IEC)

materials designed to influence positive behaviour in adolescents, there is need to ensure that the contents of such programme take into cognizance various identified factors that make adolescents at risk for illicit drug use.

Also, teens can be influenced about choice of peers by engaging them in discussion about qualities that make a good friend.

In conclusion, encouraging healthy activities that promote the use of teens' interests and talents will go a long way in curtailing habit of drug use. Parental example, support and monitoring has a great influence on teens' behaviour by reviewing consequences of and alternatives to using illicit drugs.

## **Recommendation For Future Research**

This study has provided the level of knowledge, pattern and reasons for marijuana use among adolescents in selected district in Owo LGA. The scope of the study was limited by time, finance and hence, it is recommended that future research should employ larger population. This will provide a concrete detail about the subject matter.

### **REFERENCES**

- 1. Anthony, J. C. Early onset drug use and risk of later drug problems. Drug and Alcohol Dependence, 1995; 40(i): 9.15.
- Brechwald W.A & Prinstein M.J. Beyond homophily: A decade of advances in understanding peer influence processes. J Res Adolesc. 2011; 21:166–179
- 3. Brook, J. S. Adolescent illegal drug use: The impact of personality, family and environmental factors. Journal of behavioural medicine, 2001; 24(2): 183-203.
- Brown T. L., Clayton, R. R. Comparing the developmental trajectories of marijuana use of African American and Caucasian adolescent. Experimental and Clinical Psych pharmacy, 2004; 12(1): 47-56.
- 5. Carliner H, Mauro PM, Brown Q L, Shmulewitz D et al. The widening gender gap in marijuana use prevalence in the U.S. during a period of economic change, 2002-2014. Drug Alcohol Depend, 2016; 170: 51-58. doi:10.1016/j.drugalcdep.2016.10.042.
- 6. Chatila, W. M., Wynkoop, W. A. Smoking patterns in Africa Americans and Whites with advanced COPD. Chest, 2004; 125 (1): 15-21
- 7. Crandall L. A. Ethnic differences in the salience of risk and protective factors for alcohol and marijuana. Journal of Ethnicity in Substance Abuse, 2004; 3(1): 11-27.
- 8. Cusher, et al. Troubled Teens Risk Rapid Dependence on Marijuana. Drug and Alcohol Dependence, 1994; 50: 1.
- 9. Dahl, et al. Survey Measurement of Marijuana use. National Institute of Drug Abuse. DHHS Pub. No., 1995; 92–192.

- 10. Daley M. C. Race, managed care, and the quality of substance abuse treatment. Administration and policy in mental health, 2005; 32(4): 457–476.
- 11. Dennis, et al. Predictors of smoking cessation among African-Americans enrolled in a randomized controlled trial of bupropian. Preventive Medicine, 2005; 38(4): 498-502.
- Dijkstra J.K, Lindenberg S & Veenstra R.. Beyond the class norm: Bullying behaviour of popular adolescents and its relation to peer acceptance and rejection. J Abnorm Child Psych, 2008; 36: 1289– 1299.
- 13. Eber S. F. The relationship between perceptions of neighbourhood characteristics and marijuana use among adolescents. American Journal of Community Psychology, 1994; 34(3-4): 205-218
- 14. Fergusson, et al (2003). Substance misuse in adolescent. Thousand Oaks, CA: Sage Publication
- 15. Fernander A. F. Exploring the association of active coping and education on smoking behaviour and marijuana dependence among Blacks in the USA. Social Science and Medicine, 2005; 60(3): 491-500, 2005
- Friedman, et al. Early Adolescent marijuana use as predictor to employment in adulthood. Journal of child and Adolescent marijuana use, 2004; 13(4): 49060.
- Friestad C, Pirkis J, Beihl M & Irwin C. Socioeconomic patterning of smoking, sedentary lifestyle and overweight status among adolescents in Norway and the United States. Journal of Adolescent Health, 2003; 2003; 22:275–278.doi:10.1016/S1054-139X (03)00214-3.
- 18. Gfroerer J. C. Prevalence of youth substance use: the impact of methodological difference between two national surveys. Marijuana and Alcohol Dependence, 1997; 47: 19-30.
- Hamas, J. "Socioeconomic Status, Academic Success, and Relationship with Parent/Guardian: Contributions to Marijuana Use in Teens" (2017). Honours Research Projects, 2017; 454. http://ideaexchange.uakron.edu/honors\_research\_projects/454
- Hamilton H, Noah S & Adlaf E. Perceived financial status, health and maladjustment in adolescence. Social Science & Medicine, 2009; 68(8): 1527– 1534. doi: 10.1016/j.socscimed.2009.01.037.
- 21. Hancox, R.J, Shin, H.H, Gray, A.R, Poulton, R, & Sears, M.R (2015) Effects of quitting cannabis on respiratory symptoms. Eur Respir J, 2015. 46(1): p. 80-7. doi: 10.1183/09031936.00228914
- 22. Harik-Khan R. I. Racial difference in lung function in African-American and White children: effect of anthropometric, socio economic, nutritional, and environmental factors. American journal of Epidemiology, 2004; 160(9): 893:900.
- 23. Johnston L, O'Malley P, Miech R, Bachman J & Schulenberg J. Monitoring the Future National Survey Results on Drug Use: 1975-2015: Overview: Key Findings on Adolescent Drug Use. Ann Arbor,

- MI: Institute for Social Research, The University of Michigan, 2015.
- 24. Johnston LD, et al. (2013) Monitoring the future national survey results on drug use, 1975–2012: Volume i, secondary school students. Ann Arbor, MI: Institute for Social Research at the University of Michigan; 2013.
- 25. Johnston L. D. (2001). Monitoring the future: National results on adolescent drug use. Bethesda, MD: The National Institute on Drug Abuse.
- 26. Kessler R. C. The Epidemiology of Co-occurring Addictive and Mental Disorders in the National Comorbidity Survey: Implications for Prevention and Services Utilization. American Journal of Orthopsychiatry, 1996; 66: 17-31.
- 27. Khroyan et al. Effects of marijuana use on adolescence: Evidence for social influence from a genetically informative design. Addition, 2004; 100(4): 430-438.
- 28. Kipke M. (199). Risks and Opportunities: synthesis of studies on adolescence. Washington, DC: National Academy Press
- Knecht A.B, Burk W.J, Weesie J, et al., Friendship and alcohol use in early adolescence: A multilevel social network approach. J Res Adolesc, 2011; 21:475–487.
- 30. Lewis et al. Culturally appropriate substance abuse treatment for parenting African American women. Issues in Mental Health Nursing, 2004; 25(5): 451-472.
- 31. Lukas, et al. Comparison of smoking release curves among African-American smokers. (Rapid Communication). Addictive Behaviours, 1994; 29(8): 1679-1683
- 32. National Academies of Sciences E, Medicine. The health effects of cannabis and cannabinoids: the current state of evidence and recommendations for research. Washington, DC: The National Academies Press; 2017.
- 33. National Institute on Drug Abuse (2017). What are marijuana's long-term effects on the brain? Available from: https://www.drugabuse.gov/publications/research-reports/marijuana/how-does-marijuana-use-affect-your-brainbody
- 34. Okuyemi, et al. Comparison of smoking release curves among African-American smokers. (Rapid Communication). Addictive Behaviours, 2004; 29(8): 1679-1683.
- 35. Poulin F, Kiesner J, Pedersen S, et al., A short-term longitudinal analysis of friendship selection on early adolescent substance use. J Adolesc, 2011; 34:249–256
- 36. Rhyne D.N, Anderson S.L, Gedde M & Borgelt L.M. Effects of Medical Marijuana on Migraine Headache Frequency in an Adult Population. The journal of Human Pharmacology and drug therapy, 2016; 36(5): 505-510. https://doi.org/10.1002/phar.1673

- 37. Schroeder, et al: Trends in Recall and Appraisal of Anti-Smoking Advertising among American Youth: National Survey Results, 1993; 6(1): 1-19.
- 38. Spunt, et al (1994). Adolescent Self-Reported Behaviours and their Association with Marijuana use. National Household Survey on Marijuana Use. Centre for Mental Health Services, DHHS Pub. No. (SMA, 92-1942).
- Stêphane L, Beck, F, Myriam K, Patrick, P & Nearkasen C, (2012) The Influence of Socioeconomic Status on Cannabis Use Among French Adolescents. Journal of Adolescent Health April 2012 DOI: 10.1016/j.jadohealth.2011.08.004
- 40. Substance Abuse Centre for Behavioural Health Statistics and Quality (2017). Results from the 2015 National Survey on Drug Use and Health: Detailed Tables. SAMHSA. https://www.samhsa.gov/data/sites/default/files/NSD UH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf. Publish ed September 8, 2016. Accessed January 18, 2017.
- 41. Tucker J.S, Green H.D, Jr., Zhou A.J, et al., Substance use among middle school students: associations with self-rated and peer-nominated popularity. J Adolesc, 2011; 34: 513–519.
- 42. Tucker J.S, de la Haye K, Kennedy D.P, Green H.D, Jr., & Pollard M.S, Peer Influence on Marijuana Use in Different Types of Friendships. J Adolesc Health, Jan, 2014; 54(1): 10. 1016/j.jadohealth.2013.07.025.
- 43. UNFPA, Adolescents and Reproductive Health Care: Annual Report, 1999.
- 44. Vance B. D. Analysis of Effect of Tetrahydrocannabinol on Physical Health. Journal of Psychoactive Drugs, 2004; 37(1): 51-61.
- 45. Sewerage and Solid Waste Project Unit, Barbados.