Journal of Clinical and Medical Images

Research Article

ISSN: 2640-9615 | Volume 5

Personality Traits, Self-Esteem and Gender as Factors in Cannabis Use Among Nigerian Adolescents

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Received: 11 June 2021

Accepted: 02 July 2021

Published: 08 July 2021

Citation:

Eke OH et.al. Personality Traits, Self-Esteem and Gender as Factors in Cannabis Use Among Nigerian Adolescents. J Clin Med Img. 2021; V5(12): 1-6

Keywords:

Cannabis; Personality; Gender; Self-esteem; Nigeria.

1. Abstract

Psychosocial factors in substance use have generally been investigated by several researchers. There is little research on use of cannabis which appears to be increasing in recent times in developing countries such as Nigeria. This study examined personality, self-esteem and gender as factors in cannabis use. One hundred and ninety nine secondary school students (115 males and 84 females; Mage = 16.26) participated in the study. They completed the Extraversion scale of Eysenck Personality Questionnaire, Index of Self-Esteem (ISE) and Substance Use Questionnaire. Linear regression result showed that personality did not significantly predict cannabis use (Beta=.07, p<.05). The result also indicated that self-esteem was not a significant predictor of cannabis use (Beta=.14, p<.05). Gender was a significant predictor of cannabis use (Beta=.22, p<.01) indicating that male students reported higher use of cannabis. It was concluded that gender differences need to be considered in policies, pschoeducational programmes and interventions to curb the use of cannabis use.

2. Introduction

Cannabis is the most widely abused drug in most parts of the world [1-5], including Nigeria. Generally, the prevalence rate for lifetime cannabis dependence, is more than double that for any other illicit substances [6,7]. The prevalence of the abuse of cannabis in Nigeria was 14%, making it the highest consumer of cannabis in Africa, according to the United Nations Office on Drugs and Crime [8, 9]. Apart from its availability, the attraction to abuse cannabis may also be attributed to its peculiar psychopaharmacological characteristic. It has a non-specific pharmacological effect, targeting γ-aminobutyric acid (GABA) directly and dopamine and serotonin indirectly [10-12]. When cannabis is smoked, the delta-9-tetra-hydro Cannabinols (THC) reaches the brain quickly and its effects on perception, cognition and psychomotor performance are fully apparent within a few minutes, and may last over 24 hours (Leshner, 1998).

The negative impact that the drug can have on academic and social functioning, as well as mental health of young students, has been widely documented [13-16]. The impact upon educational achievement occurs due to impaired working memory and learning capabilities [17]. A number of large studies have also examined the expression of psychiatric symptoms in the general population and their association with cannabis use [18,19]. Psychosocial consequences commonly cited by treatment seekers for cannabis use include relationship and family problems, guilt related to cannabis use, financial difficulties, low energy, dissatisfaction with productivity level, sleep and memory problems, and low life satisfaction [20, 21].

Due to the increasing awareness of the attraction that cannabis holds and its associated consequences, it remains a public health problem that requires systematic efforts towards its prevention

and intervention. In the achievement of these goals, the role of constant and life- long factors in predicting use need to be better understood. Although, adolescents and young adults aged between 15 and 29 years are the highest abusers of psychoactive drugs, especially cannabis [23], there is little research on the determinants of cannabis use among persons within the age group. Casa (2012) highlighted reasons why adolescents use cannabis including stress, social acceptance and/ or misinformation and easy access to substance. Others include need for belongingness by adolescents, boredom, feeling of being grown-up, wanting to rebel and urge to experiment [24]. The purpose of the present study is to investigate the role of personality, self-esteem and gender in cannabis use among secondary school students.

One of the most stable factors across the life span is personality [4]. Two models explaining the emergence of drug use in adolescence and its persistence into problem drug use were the socialization theory [25] and the theory of problem behaviour proneness [26]. At the centre of both theories is an interaction between a number of personality traits, along with environmental stressors, and the degree of engagement the young person has with societal norms. Those with extremes of personality may be more drawn to one another and exert social pressure upon other group members to engage in further risk-taking behaviours, which they may have inhibited in other social circles [4]. Personality traits may also confer a risk for cannabis use through a different mechanism: the social deviance model [27]. In the social deviance model, those who score low on certain personality traits are more likely to be influenced by societal norms and, therefore, more likely to engage in deviant behavior. Therefore, the role of personality in predicting cannabis use should be considered in an additive fashion, with increasing extreme high scoring on particular traits that are more likely to lead to problem cannabis use [4].

Previous research on clinical and non-clinical populations has linked chronic use of cannabis to personality traits associated with increased psychosis-proneness, or schizotypy [28]. However, recent research [29] observed that relatively little research has investigated relations between chronic cannabis use and facets of normal personality. Such facets of normal personality includes the factors of the Big Five Model and Eysenck's Personality Questionnaire (EPQ). Specifically, extraversion is a well-validated facet of most personality taxonomies derived from questionnaire measures of personality traits such as the Big Five Inventory and EPQ.

Some studies have found that extraversion was related to cannabis use [30-33], while other studies did not find such a relationship [34, 35, 29]. After controlling for alcohol abuse/dependence, antisocial personality disorder, and internalizing symptoms, cannabis abuse/dependence symptoms were found to be negatively related to extraversion [36]. Negative correlations of extraversion and cannabis use has been supported by the substantial evidence of association of cannabis use and depression [18,19] or social anxiety [37, 38. In an extensive review of the role that personality traits may play in cannabis use, Barkus (2008) focused primarily on impulsivity and schizotypy, because the two personality variables have been extensively studied for their contribution in this regard. There is reasonable evidence on the association between the personality and substance use, but there is the need for studies on personality traits such as extraversion in relation to cannabis use among Nigerian secondary school students.

The second predictor variable in this research is self-esteem. Self-esteem according to Branden (1993) is self-reinforcing. When one has confidence in one's ability to think and act effectively, one can perceive when one is faced with difficult challenges. Also, when one has more confidences in one's ability, one succeeds more often than one fails. The individuals forms more nourishing relationships and expect more from life and oneself. On the contrary, when a person lacks confidence, she/he gives up easily, fails more often and aspires less to what one wants. Self-esteem has been found to be a factor in substance use [39, 40]. Specifically, studies indicate that self-esteem was related to use of cannabis [41]. Others found no relationship between self-esteem and cannabis use [42, 43]. Research indicates mixed findings on the role of self-esteem on the onset of use and continued use of specific drugs (See Kavas, 2009). The present study seeks to explore the role of self-esteem in relation to the specified widely consumed cannabis.

Gender is the third predictor variable in this research. Researchers on substance use among young people found that males use cannabis more than females [44, 45] while other researchers have found no significant differences between males and females in using cannabis [46]. No previous research has simultaneously investigated relations among scores on measures of extraversion, self-esteem and the use of cannabis. To the knowledge of the researchers, this is the first study to investigate these relations in Nigerian secondary school students, thereby bridging the gap between in literature on cannabis use in Nigeria. It was hypothesised as follows:

1. Personality will significantly predict cannabis use among secondary school students.
2. Self-esteem will significantly predict cannabis use among secondary school students.
3. Gender will significantly predict cannabis use among secondary school students.

3. Method

3.1. Participants

One hundred and ninety-nine (199) secondary school students participated in the present study. Participants were recruited from two randomly selected secondary schools in Nsukka urban area, Enugu state, namely: Nsukka High School, Nsukka (n = 115) and Queen of the Rosary Secondary School, Nsukka (n = 84). Of the 199 par-

ticipants, 115 were males and 84 were females. Participants' ages ranged between 14-18 years with mean age of 16.26 years.

3.2. Instruments

Cannabis Use Questionnaire (SUQ) was used to assess the use of cannabis among the students. It is a 16-item scale developed by the researchers. It is scored in a 6-point likert format. An example of the items in the scale is "how often do you use cannabis in a week". The 16 items are directly scored. A score of 0 = never, less than 1 month = 1, 1-3months = 2, 4-6months = 3, 7 -12 months = 4 and more than one year = 5.

The face and content validities of the CUQ was ascertained through expert judgement. The initial 27-item pool of the draft questionnaire was evaluated by 5 experts in Department of Psychology and 6 experts in the Faculty of Pharmacy in University of Nigeria, Nsukka. The experts suggested the reduction of the items to 20 and made useful comments for the rephrasing of some items. The 20 items were completed by 30 students of Community Secondary School, Aro-Uno, Nsukka Local Government Area in Enugu state, for the validation study. As recommended by psychometric theorists [47,48], only 16 items which loaded .30 and above were extracted. The 16 items were tested for internal consistency reliability using split-half reliability with adequate values of .90, indicating adequate homogeneity of the items. The temporal stability of the scale was tested using test-retest reliability. A coefficient value of .54 was obtained.

Index of Self-eEsteem (ISE), developed by Hudson (1982), was used for the measurement of participants' self-esteem. It consists of 25 items that measure the self-perceived and self-evaluative component of self-concept. It has Cronbach's alpha of .93 and a two-hour test retest coefficient of .92 (Hudson, 1982). Onighaiye (1996) obtained a divergent validity of ISE the Interpersonal sensitivity scale (r = .46) and depression scale (r = .38) of Symptoms Distress Check-list-90 (SCL-90). It is scored on a 5-point scale of 1, 2,3,4,5. Higher scores indicate low self-esteem while lower scores indicate high self-esteem.

The extraversion scale of Eysenck Personality Questionnaire - Adolescents version (EPQ-A) was used to measure the extent of introversion-extroversion of the participants. It is scored on a dichotomous scale of Yes/No for each item. A score of one point is given for the expected response in each item. Typical questions in the E-scale are "Do you like plenty of excitement going on around you?" and "Do you nearly always have a quick answer when people talk to you?" Eysenck and Eysenck (1975) reported test-retest reliability (six months interval) coefficient of .60 for males and .60 for females. The coefficient of divergent validity with progressive matrices intelligence test for the E-scale is .00. Higher scores indicate extrovert personality while lower scores indicate introverted personality.

3.3. Procedure

Two hundred questionnaires were administered to the participants selected for the study. Questionnaire was administered to the participants in a classroom setting with the assistance of a teacher who was directed by the school principal of each school to assist the researcher. Of the 200 copies of the questionnaires given out, 199 were returned properly completed and were used for the study.

3.4. Design/ Statistics

The design of the study was a cross sectional design and Linear Regression was used for data analysis. Gender was dummy coded as 1 (males) and 2 (females) in the regression model.

4. Results

The above table shows that personality did not significantly predict cannabis use. Also self-esteem did not significantly predict cannabis use. Gender significantly predicted cannabis use (Beta = .22, $p < .01$). The table shows the linear regression values of personality, self-esteem and gender to be R = .22, R2 = .05 and Adjusted R2 = .03. It shows that personality, self-esteem and gender significantly accounted for 37% variations in the use of cannabis among adolescents.

Table 1: Linear regression of predictive roles of personality, gender and self-esteem on cannabis use

Model	B	Beta	t	r	R^2	Adjusted R^2	Sig
Personality	-2.53	0.078	-0.339				
Self-esteem	1.83	0.14	1.102				
Gender	-1.205	0.22	-3.144*	0.228	0.052	0.037	0.015

Note *p < .01

5. Discussion

This study investigated personality, self-esteem and gender as factors in cannabis use among secondary school students. Results showed that personality did not significantly predict cannabis use. The result did not confirm the hypothesis that personality (operationalised as extraversion) will predict use of cannabis. This finding supports some earlier studies [36, 35, 29] that did not find such a relationship. It contradicts the findings of other studies [49, 31-33] which reported that extraversion was related to cannabis use.

Furthermore, the result that cannabis use was not predicted by self–esteem. This result failed to support the hypothesis that self-esteem will significantly predict cannabis use. The finding is consistent with previous research that found no relationship between self-esteem and cannabis use [50, 43]. However, one study found that self-esteem was related to use of cannabis [41]. Majority of the studies showing a realtion of self-esteem and drug use have

focused on general drug use [39, 40]. Although some evidence of associations of self-esteem and specific drug use exists (See Kavas, 2009), cannabis use appears to be attractive to people of low and high self-esteem. Those with high self-esttem may desire to maintian an all-time 'high' through the drug, while those with low self-esteem may use the drug to attian the 'high' level.

The result also showed that gender was a factor in adolescents' cannabis use. This result contradicts the hypothesis that there would be no statistically significant association between gender and adolescents cannabis use. This finding supports previous research findings [51-53, 45] indicating the differences in cannabis use on account of gender. A previous finding by Choquet, et al. (2000) contradicts the finding on the prediction of cannabis use by gender. Gender differences in cannabis use is understood within the framework of differential trajectories in gender socialisation and gender roles [25]. Males are usually socialised to be out-going, adventurous and venturesome. They also come in contact with other peers who may be experimenting with illicit drug use. In this way, they may learn the use of cannabis. Male students are also assumed to be probe to problem behaviors compared to their female counterparts. Also, male adolescents who are more likely to have experimenting tendency may be taking part in cannabis and other substances in order to increase their excitatory level. On the other hand, female adolescents may less likely to use cannabis in order not to dent their image as well as how they present themselves to others.

There is need for a radical anti-drug use campaign in secondary schools. There are drug free student clubs but it was observed that the club does not exist in the schools where the students for this study were drawn. The club should be introduced and sustained in these schools. The male students should be the major target of their membership drive and public enlightenment programmes. The school syllabus on some health-related subjects (e.g., Biology, Health Science, e.t.c.) can also be reformulated to include issues of drug use. When these courses are well taught there will be reasonable improvement on effects and prevention of cannabis use.

One limitation of this study is the typical weaknesses associated with cross-section design and non-experimental research. Two, the participants for this study are also inadequate for wide generalisation of the findings. Three, we chosed extraversion which is one of the several factors in the larger spectrum of personality as a psychological construct. Researchers should include larger number of participants and adopt a longitudinal research design in the future. Although extraversion is a dominant factor in most personality models, the entire stream of personality as popularised in the Big Five or EPQ should be explored as predictors of cannabis use in subsequent studies. Personality factors In conclusion, since gender predicted adolescents' cannabis use, it is suggested that massive campaign against cannabis use and abuse in secondary schools should be embarked upon with the male students as key targets.

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