Self-Esteem, Peer Influence And Family Relationship As Predictors Of Tramadol Abuse Among Young People Undergoing Rehabilitation At A Private Facility In North Central Nigeria

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Abstract: Tramadol abuse is a significant problem among young people especially those within and slightly above adolescent age. The rate of tramadol abuse among young people is increasingly high and is linked with numerous harmful effects. However, there is still dearth of studies exploring predictors of tramadol abuse among young people in Nigeria. Therefore, this study examined the predictive role of self-esteem, peer influence and family relationship in tramadol abuse among young people undergoing rehabilitation at Rescue City Medical Centre. A sample of 50 young people aged 21 to 35 with a mean age of 24.5 (min: 21years; max: 35years) were purposively selected at Rescue City Medical Centre Makurdi, Nigeria. Clients with symptoms of 65.5% met diagnostic criteria for tramadol abuse were recruited and completed clinician-rated; Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) and self-report measures; Rosenberg self-esteem scale (RSES), Inventory of Parent and Peer Attachment (IPPA) and Index of Family Relationship (IFR). Results showed that self-esteem ($\beta = -.412$, t= -3.011, P<.05), peer influence ($\beta=.341$, t=2.752, P<.05) and family relationship ($\beta= -.477$, t= -3.904, P<.05) significantly and independently predicted tramadol abuse, with self-esteem and family relationship further demonstrating an inverse relationship with tramadol abuse. There was also a significant joint influence of the predictors on tramadol use [R= .641, R^2=.591, [F (3, 39) = 4.311, P<.01]. self-esteem, peer influence and family relationship jointly accounted for 59.1% of the variance in tramadol abuse symptoms among studied population. The study corroborate with documented studies on self-esteem, peer influence family relationship and tramadol abuse.

Key word: *Self-esteem, peer influence, family relationship tramadol abuse, rehabilitation*

Introduction

Generally, Tramadol is an opioid analgesic used mainly for treatment of moderate to severe pain (United Nations office on Drugs and Crime, 2013; Miotto, Cho, Khalil, Blanco, Sasaki, & Rawson, 2017). However, due to its addictive potential which also increases its potential for misuse (Kertesz, 2017; World Health Organization, 2014) with imminent psychosocial, economic and medical complications (French &Martin 1996; Burke, 1988; World Health Organization, 2014; Kertesz, 2017), tramadol abuse has become a problem of national and international importance. According to the United Nations Office on Drugs and Crime (UNODC), more than 35 million young people use opioids such as tramadol, morphine, heroin, methadone, buprenorphine, codeine, (United Nations Office on Drugs and Crime, 2017), and these have been implicated to negative health impact, socio-economic problems and high mortality rate ranging between 70000 and 100000 deaths yearly (World Health Organization, 2014).

Documented literature have found that tramadol remains one of the most abused opioids, especially among young people (Mohamed, Hamrawy, Shalaby, Bahy, & Allah, 2015; Kertesz, 2017).Reports from European countries such as Germany and Spain for instance, found high prevalence of tramadol abuse particularly among university students (Holloway, Bennett, Parry, & Gorden, 2014). This trend is even higher among African and Asian countries where majority of the young people indulge in high tramadol use for non-medical purpose (Salm-Reifferscheidt, 2018). For instance, a study in Egypt indicated that Tramadol is the most abused opioid (Mohamed, et al., 2015), while Nazarzadeh, Bidel, and Carson (2014) reported 4.8% lifetime prevalence of Tramadol misuse among Iranian population.

In Nigeria, the use and abuse of tramadol has become a problem of National mental health and psychiatric significance (Ahmed, 2012). The 21st century Nigeria has witnessed changing trends in the patterns of psychoactive substance use with Tramadol emerging as a candidate drug particularly in the Northern region of the country (Ibrahim, Yerima, Pindar, Onyencho, Ahmed, Machina, Shehe, Rabbebe & Wakil, 2017). Although high prevalence of abuse of tramadol have been recorded among university students in other regions (53.4%) prevalence, Duru, Oluoha, Okafor, Diwe, and Iwu, 2017) affirmed that the rate of tramadol abuse in the northern Nigeria is simply alarming (Ahmed, 2012). In Kano, Northern Nigeria, a cross sectional study amongst commercial bus drivers reported that 85.2% of respondents misuse Tramadol (Yunusa, Bello, Idris, Haddad, & Adamu, 2017). Another cross sectional study in Borno Northern Nigeria, found astronomical rise in abuse among 'Almajiris' or street children (Abdulmalik, Omigbodun, Beida, & Adedokun, 2009). This suggests that tramadol abuse among young people in the region is increasing and more research is needed.

This is expedient due to the imminent challenges that may accompany its abuse among young people. Tramadol misuse has several health consequences and also associated with mortality. In addition to the medical and socio-economic problems that abound, abuse of tramadol could affect academic progress, leads to unhealthy social groups such as cultism and indiscriminate sexual behaviour among young people. This will result in high school drop-out rate, unemployment and poverty with its attendant consequences. In addition, despite continuous efforts to prevent its abuse, the number of patients admitted to psychiatric hospitals due to drugs have increased considerably (Okoye, 2013), hence the need to identify possible risk factors to stem the tide.

Previous studies have found that, low self-esteem (Chen, Dufour & Yi, 2005), youths' perception of peer group influence (Gaidhane, Zahiruddin, Waghmare, Shanbhag, Zodpey, & Joharapurkar,2008; Dankani, 2012; Jibril, Olayinka, Omeiza, & Babantunde,2008; Okwaraji, Ebigbo, & Akpala, 2009; Mohammad, 2014) and dissatisfaction with family relationship (Ledoux, Miller, Choquet & Plant, 2002) are factors that influence drug abuse among youths and young people. Also, Adamson, Ogunlesi, Morakinyo, Akinhami, Onifade, Erinosho, *et al.* (2015) stated that drug abuse could be accounted for by the demographic

characteristics of the respondents as well as by socio-cultural variations. Self-esteem, which has to do with peoples' assessment of who they are has been found to have a profound influence on drug use and abuse among young people (Chen, Dufour & Yi, 2005). Particularly, empirical studies have implicated drug abuse to low self-esteem among youths. However, there are still studies revealing weak association between self-esteem and illicit drug abuse (Mohamadpourasl, Fakhari, Rostami, Tabatabaei (2006). Also, available research evidence shows that the influence of peers is another factor to youth substance abuse.

Yet again, poor family relationship characterized by low parental support or monitoring is associated with high rates of substance use (Piko, 2000). A plethora of studies have consistently associated drug abuse among young people with the social environment in which they live. For example, Thakore, Ismail, Jarvis Keetbaas, Payne and Rothenburg (2009) found that majority of the college students who indulged in alcohol drinking attributed it to peer pressure. Peer influence play a great role in initiation, continuation and abuse of drugs, and this is largely responsible for reasons why youths, including university students abuse drugs (Ahmed, 2012). Similarly, Ledoux et al., (2002) reported that most students who are dissatisfied with family relationship and those who are less closely monitored, are more likely to be heavy substance users than other students. Dysfunctional family relationship increases the risk for youths substance use.

Despite, the relative high frequency of the abuse of Tramadol in Northern Nigeria, this is the first study based on available literature in this clime that attempts to look at this drug from the perspective of addiction among young people under rehabilitation. Also, based on literature search, there is still paucity of research on the influence of self-esteem and peer pressure in tramadol abuse among university population. The only study conducted by Ahmed (2012) considered general population and did not examine the joint influence of the variables captured in the present study. The objectives of the study are to:

i. determine the role of self-esteem, peer pressure and family relationship in tramadol abuse among young people receiving treatment for tramadol abuse

Method

Study Design

This is a retrospective cross sectional study in which the clients' medical records for the period of one year was retrieved from the Health Information Management Department of the Hospital. All relevant information which included; clinical and drug-related information as well as the ICD-10 diagnoses of the clients were extracted.

Setting

This study was conducted among clients with drug (tramadol) abuse problems undergoing rehabilitation at Rescue City Medical Centre, Makurdi, in North-central Nigeria. RCM Makurdi is drug addiction treatment, education and rehabilitation (DATER) center specifically responsible for drug issues. Based on the Hospital's records, the total number of patients undergoing rehabilitation totaled fifty. Many of them have cases that are tramadol-related and this group were specifically selected and assessed. All clients were assessed by the therapeutic team consisting of a psychiatrist and clinical psychologists. All diagnoses were made according to the International Classification of Diseases and Related Disorders version 10 (ICD - 10) of the World Health Organization criteria.

2.2. Sample Population

The total population for the study consisted of all patients receiving treatment for tramadol addiction in the DATER unit of Rescue City Medical Centre, Makurdi. Their age ranged from 21 to 35 with mean age of (Mean = 24.5; min: 21; max: 35). In terms of sex, 33 (66%) were male while 17 (34%) were female.

i. Study instruments

Sociodemographic profiles: which include the gender, age

ii. Clinical and drug-related profiles: such as age at onset of use of psychoactive substance, how the client was initiated, number of psychoactive substances used, the drug formulation, average daily dosage, average daily dosing frequency, mode of obtaining the drug, whether the client has met the criteria for dependence, commonest dependence symptoms and reasons advanced for continuous Tramadol abuse.

Self-esteem: this was measured using Rosenberg self-esteem scale (Rosenbersg, 1965). This is a standardized instrument that assess the level of self-esteem in different populations including adolescents. It was scored using a 4-point Likert scale format ranging from strongly agree =3, agree=2, disagree =1, strongly disagree =0, except for some reversed items which the scoring was reversed. Sample questions include: I feel that I have a number of good qualities, All in all, I am inclined to feel that I am a failure, I am able to do things as well as most other people, I feel I do not have much to be proud of, I take a positive attitude toward myself, On the whole, I am satisfied with myself. Scores equal or above the mean ($\bar{x}$ =21.87; SD=3.50) infers high self-esteem while participants whose scores were below this cut-off were considered to have low self-esteem.

Peer influence: This was assessed using 24-item sub-scale from the Inventory of Parent and Peer Attachment (IPPA) developed by Armsden and Greenberg (1987). The IPPA was developed in order to assess adolescents' perceptions of the positive and negative affective/cognitive dimension of relationships with parents and close friends. In the study, the sub-scale on relationship with close friends was used. The response categories ranged from (1) Almost never or never true (2) Not very true (3) Sometimes true (4) Often true (5) Almost always or always true. High score indicates higher level of peer connectedness and low score indicates lower level of peer connectedness. The instrument has a Cronbach's alpha of .92 and a three week test-retest reliabilities for a sample of 27, 18- to 20-year-olds of .86 (Armsden & Greenberg, 1987).

Family relationship: This is assessed using Index of Family Relations (Huston, 1982). It is 25 item scale that measures the problems of interpersonal relationship in the family. The scale is rated on a 5-point Likert response style ranging from 1= rarely or none of the time, 2= a little of the time, 3=some of the time, 4= a good part of the time, 5= most or all of the time. High score indicates higher level of family relationship and low score indicates lower level of family relationship. The instrument has a Cronbach's alpha of .95 (Huston, 1982). Alusiyan (1994) obtained a divergent validity coefficient of .006 by correlating IFR and MMPI Psychopathic Deviant Scale (PDS).

Ethical Issues

Ethical clearance was obtained from the Institutional Review Board of the Rescue City Medical Centre, Makurdi. This was premised on the Board's conviction that the study has substantially complied with the Declaration of Helsinki for research in human participants. All questionnaires were anonymous in order to ensure confidentiality. The materials including journals, books, projects used for the study were well acknowledged.

Data Entry and Statistical Analyses

The collected data was coded and cleaned before entry into the Statistical Package for Social Sciences Version 20. 0 (SPSS 20.0) for analysis. Descriptive statistics mainly frequency and percentage were used to analyse descriptive data. Multiple regression analysis was to test the research hypotheses. The statistics was set at 95% confidence interval (95% C.I.), two-tailed.

Results

Table 1: Inter-correlations among Study Variables

Variable	1	2	3	4
Tramadol	1			
Self-esteem	.341*	1		
Peer influence	.223*	.421*	1	
Family relationship	.562**	.332*	276	1

* Correlation is significant at 0.05 level (2tailed)

** Correlation is significant at 0.01 level (2tailed)

The result in Table 1 indicted that tramadol use is significantly related to self-esteem, peer pressure and family relationship. Also, Self-esteem have shown significant relationship with peer influence and family relationship. However, peer pressure is not related to family relationship.

Table2

Variable	B	SE	β	F	t
Constant	1.205	2.151		4.311	4.901**
Self-esteem	.052	.169	- .412		- 3.011*
Peer influence	.117	.166	.341		2.752*
Family relationship	-.169	.118	-.477		-3.904**

The presented result as captured in Table 2 revealed that self-esteem is significantly, independently and inversely related to tramadol abuse among young people (β = -.412, t= -3.011, P<.05), implying that high self-esteem was a predictive of less severe tramadol use symptoms. Also, the result shows that peer influence significantly and positively associated with tramadol use (β=.341, t=2.752, P<.05). This means that peer influence was a greater predictive of tramadol use symptoms. Additionally, there was a significant inverse relationship between family relationship and tramadol abuse (β= -.477, t= -3.904, P<.05). Finally, self-esteem, peer influence and family relationship are significant and joint predictors of tramadol abuse symptoms R= .641, [R^2=.591, [F (3, 39) = 4.311, P<.01]. The result further indicated that self-esteem, peer influence and family relationship jointly accounted for 59.1% of the variance in tramadol abuse symptoms among young people.

Discussion

This study assessed self-esteem, peer influence and family relationship as predictors of tramadol abuse among young people undergoing rehabilitation at Rescue City Medical Centre Makurdi (RCMC). The study became necessary due to the lack of extensive empirical research on the factors that lead to high tramadol abuse among young people. Consequently, it was hypothesized that self-

esteem, peer influence and family relationship will significantly predict tramadol abuse among young people undergoing rehabilitation at RCMC. Results of multiple regression confirmed our hypotheses as shown by independent and joint prediction of self-esteem, peer influence and family relationship on tramadol abuse. As anticipated, self-esteem result on tramadol abuse revealed a facilitating effect, such that young people with low score on self-esteem were the ones with severe symptoms of tramadol problems, similarly, increased peer influence was associated with high tramadol use. Also, expectedly, the better the family relationship young people enjoyed, the less the use of tramadol they are involved in. Overall, these results imply that young people with low self-esteem and high peer influence who does not have good family relationship will experience tramadol abuse problem.

The finding of this study corroborates that of Mohamed, *et al.,* (2015) and Kertesz, (2017) that young people experience tramadol use problems. Additionally, result on self-esteem and tramadol use is in line with Mohamadpourasl, Fakhari, Rostami and Tabatabaei (2006) and Chen, Dufour and Yi (2005) findings that low self-esteem is associated with tramadol use disorder among young people. Additionally, result on peer influence and tramadol abuse is consistent with Dankani (2012) and Mohammad (2014) findings that increased peer influence result to tramadol abuse disorder. Also, the result on family relationship and tramadol abuse is supported by (Ledoux, Miller, Choquet & Plant, 2002). Based on the findings of this study, it is recommended that, treatment for tramadol use disorder among young people should include a self-esteem building component to ensure sustained recovery and enhance functioning. Also, education on the contributory role of peer influence and poor family relationship in tramadol abuse should be made available to clients and families respectively to help boast the clients' recovery capital.

The present study is not without limitations. First, the study was limited to cross-sectional investigation and cannot explain causality or changes in the relationships overtime. Secondly, the self-report measure could have made it possible for faking, thereby affecting the validity of the study findings. Thirdly, the used little sample size, caution should be placed in making generalization of this findings. Despite the aforementioned, the study has highlighted the role of self-esteem, peer influence and family relationship in young people with tramadol abuse disorder, and could guide clinicians to recognize and include self-esteem, peer influence and family relationship as a significant part in managing tramadol use problem among young people.

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