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Adverse Childhood Experiences as Predictors of Substance Use Disorder among Female Youths in Plateau State, Nigeria

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Abstract

This study examined the predictive influence of adverse childhood experiences (physical abuse, emotional abuse, emotional neglect, parental neglect, and sexual abuse) on Substance Use Disorder (SUD) among female youths in Plateau State, anchored on Bronfenbrenner's (1977) Ecological Theory. The study adopted a retrospective cross-sectional survey design. A total of 159 female youths with a mean age of 29.69±7.53 years were recruited from four healthcare facilities in Plateau State: Intellect Mental Health Centre Services, Jos University Teaching Hospital (JUTH), Queen's Healthcare Centre (QHC), and Vom Christian Medical Centre. All participants were pathological substance users who had been diagnosed and were receiving treatment at the respective facilities. Validated instruments with acceptable reliability coefficients (.73–.87) were used to assess ACEs and SUD. Hierarchical regression analysis revealed that adverse childhood experiences were significant independent and joint predictors of substance use disorder, explaining about 5% of the observed variance. Apart from sexual abuse, early adverse experiences of physical abuse, emotional abuse, emotional neglect, and parental neglect emerged as significant independent predictors of SUD among the female youths. Physical abuse showed the strongest predictive validity, consistent with findings that physical maltreatment during childhood was related to injection drug use among youths, and comparatively higher among females. The research hypothesis was confirmed, demonstrating that young women who are exposed to early traumatic events are likely to resort to problematic substance use. This study underscores the urgent need for trauma-informed care integration in mental health facilities and specialized women's treatment programs in Plateau State. Prevention efforts should target children exposed to physical abuse, emotional abuse, and neglect, as these have been identified as significant predictors of later SUD.

Keywords: ***Adverse Childhood Experiences, Substance Use Disorder, Female Youths, Plateau State, Trauma, Physical Abuse, Emotional Neglect***

Introduction

The increase in involvement of youths in substance use has been a major concern globally. World over, the number of youths being incarcerated and detained for substance abuse-related crimes have been evidenced and documented in recent decades (Abrantes et al., 2005; Plattner et al., 2012). Vandalism, prostitution, drop-out of school, armed robbery and murder have been alarmingly linked to substance use (Schubert et al., 2011), while its mental health effects ranging from posttraumatic stress disorder (PTSD), suicide and several psychotic problems are robustly documented (United Nations Office of Drugs and Crime [UNODC], 2020).

Furthermore, global statistics have shown that over 40% of the global population are involved in illicit use of various substances, especially alcohol, marijuana, tramadol, nicotine, cocaine and codeine (UNODC, 2017). What is even more frightening is that the number of people who progress from substance use to addiction and disorder is high, with statistics showing an escalating trajectory.

Research has shown that different substances/drugs such as tramadol, alcohol, cannabis, shisha and caffeine are highly consumed among northern Nigerian youths (Audu et al., 2009; Nwoga et al., 2019). In relation to men, rates of substance use and addiction are comparatively higher among women (Agwogie et al., 2023). Contrastingly, while a significant number of these women are addicted to drugs (UNODC, 2019), only few of them utilize treatment, due to social, cultural and structural barriers (Abikoye et al., 2019). In Plateau State, this trend has become particularly worrisome, as more young women are engaging in the use of psychoactive substances, often resulting in far-reaching consequences for their physical, psychological, and social well-being (Nwoga et al., 2018).

Adverse Childhood Experiences (ACEs) are well-documented harmful events (Hughes et al., 2017; Nurius et al., 2019). ACEs are manifestations of childhood trauma defined as experiences in which a child is exposed to emotional, physical, or sexual abuse, neglect, and/or household dysfunction before their 18th birthday (Felitti et al., 1998). Until recently, ACEs were thought to be rare occurrences; however, recent estimates suggest that as many as 67% of the US population have encountered at least one of these events (Merrick et al., 2019).

In Nigeria and Plateau State in particular, many children have over the years experienced adverse events due to security challenges in the state (Merrick et al., 2019). Such experiences increase risks for many negative physical and mental health outcomes throughout the lifespan, including but not limited to substance use disorders and suicide (Jia and Lubetkin, 2020; Hughes et al., 2017).

Theoretical Framework

Given the objective of the study, the Bronfenbrenner (1977) Ecological Theory was adopted, which posits that different levels of a child's environment (microsystem, mesosystem, ecosystem, and macrosystem) can play a role in shaping behaviours. For instance, negative environmental events such as early neglect or emotional abuse from parents (micro level) can promote negative behaviours including harmful substance use behaviour in adults.

Study Hypothesis

Subject to the theoretical assumptions of the study, the following hypothesis was formulated:

Adverse childhood experiences (physical abuse, emotional abuse, emotional neglect, parental neglect and sexual abuse) will significantly negatively independently and jointly predict Substance Use Disorder (SUD) among female youths in Plateau State.

Rationale for the Study

This study is particularly timely given the security challenges in Plateau State, where many children have experienced adverse events due to the crises on the plateau. Such experiences have incurred physical scars, either by the perpetrators or frustrated biological/foster parents. Therefore, this devastation and frustration could increase intentional use of physical force or violence against the children resulting in harm, injury or prolonged trauma, with long-term impact on current substance use problems.

Understanding the predictive influence of adverse childhood experiences on substance use disorder among female youths is critical for developing targeted intervention strategies that address the root causes of addiction rather than merely treating symptoms. There is a critical need to understand the predictive influence of theses specific adverse experiences on substance use disorder among female youths. While symptoms of addiction are often treated in isolation, this study seeks to address the root causes of the pathology. By elucidating the relationship between early childhood trauma and current substance use problems, this research aims to inform targeted intervention strategies that restore the developmental trajectory of affected youths rather than merely managing the symptoms of addiction.

Method

Study design

The study adopted a retrospective cross-sectional survey design in line with the objective, given that the study sought to assess the long-term impact of ACEs, including trauma, on current behaviours by enabling female youths to relate early traumatic experiences with current substance use problems. This study was anchored on Bronfenbrenner's (1977) Ecological Theory, which posits that different levels of a child's environment (microsystem, mesosystem, ecosystem, and macrosystem) play a role in shaping behaviours. For instance, negative environmental events such as early neglect or emotional abuse from parents (micro level) can promote negative behaviours including harmful substance use behaviour in adults.

Setting

The study was conducted in Plateau State but specifically among female youths receiving treatment at the Quintessential Healthcare Centre (QHC) situated at Rayfield, Jos South LGA; Jos University Teaching Hospital (JUTH); Centre for Addiction Treatment and Research, Vom Christian Hospital, Jos and Intellect Healthcare Services, behind National Library 18th Street, Jos. These centres offer treatment and rehabilitation programmes for general mental illnesses and substance abuse. Previous research has confirmed high patronage of youth with substance use problems in the chosen hospitals (Nwoga et al., 2018). Consequently, the current study research adopted the centres which are already reported to have high concentration of diagnosed patients with substance use disorders.

Study Population, Participants and Sampling Technique.

The population comprised female youths from 17 to 35 years residing within Plateau State, Nigeria. This age bracket was selected based on the heightened vulnerability to substance use and psychosocial influences that characterize it. The estimated population of female youths receiving treatment for substance use disorder at the four facilities is about 461. Intellect Health Care Services (201), JUTH (100), Vom Christian Health Centre (70) and Quintessential Healthcare Centre (90). From the study population, the participants were drawn for the study. As such, participants comprised (N=159) female youths who were **purposively** selected from the four medical facilities. All participants were either in or out-patients receiving treatment for a substance use disorder at the designated medical facilities.

Participants' mean age was 29.69±7.53 years. Out of the 159 female youths who were assessed, 54(34.8%) were recruited from Intellect Mental Health Centre Services, 40(25.2%) from JUTH, 38(23.9%) from QHC, while 27 (17.1%) were sampled from Vom Christian Medical Centre. In terms of religion, the majority of the participants 152 (95.6%) reported their religion as Christianity, while 7 (4.4%), reported as Islam. Concerning specific substance problem each had been struggling with, majority 71 (44.7%) reported Alcohol, followed by Heroine 35(22%), Tramadol 32(20.1%) and Cannabis 7(4.4%), while 14 (8.8%) were experiencing other unnamed substance use problems. Majority of the females, a total of 80, representing 50.3% had secondary education, followed by those with post-secondary education 47, representing 29.6% and lastly those with primary education and below, 32 (20.1%). All the participants were pathological substance users who had been diagnosed and were receiving treatment in the medical facilities.

***Inclusion criteria*:** female youths (based on defined age specification) who had previous history of exposure to adverse childhood events and indicated willingness to participate in the study.

***Exclusion criteria*:** female youths who had no previous history of exposure to adverse childhood events and had indicated their unwillingness to participate in the study. Also, female youths who had shown willingness to participate in the research but are not accessing services from the designated study settings at the time of the research.

Sampling Technique and Sample Size Determination

This study utilized two sampling techniques. Firstly, the four medical facilities were purposively selected, considering that they contain participants with desirable characteristics suitable for the study and its objectives. According to **Patton (2015)** purposive sampling should be considered a more suitable method when it guarantees recruitment of areas or participants with desirable population parameters set up for the study **(Patton, 2015)**. In selecting participants, convenience sampling technique was adopted, considering that most of the female youth were out-patients and so using randomization was almost impossible. The convenience sampling technique also guaranteed smooth, efficient and hitch-free data collection from respondents from the four centres aligned with the study objective and sampling technique, the sample size was calculated using G*Power 3.1 statistical software for multiple regression analysis, assuming a medium effect size ($f^2 = 0.15$), power = 0.80, alpha = 0.05. Thus, using this formula, the calculated sample size of 174 was arrived at. However, only 159 data from diagnosed female youths were analysed.

Ethical Approval and Informed Consent.

In line with global best practices, ethical approvals for the study were obtained from Jos University Teaching Hospital **(no. JUTH/DCS/IREC/127/XXXXI/3003)** and Quintessential Healthcare Centre (QHC) before embarking on this research. Approval was also obtained from relevant authorities of the various centres where questionnaires were administered. The principles for conducting research with human samples, based on Helsinki's declaration which was originally adopted in June 1964 were strictly adhered with. This research involves female youths in a highly religious and culturally conservative north, so there are potential ethical challenges that may have serious implications. As part of control mechanism, all participants were required to fill inform consent form. Participation was voluntary and confidentiality was guaranteed.

Instruments for Data Collection

The research instruments were compiled as a structured questionnaire booklet. These instruments included: Demographics Section: Covering age, religion, ethnicity, Childhood Trauma questionnaire (CTQ) developed by Bernstein et al., (1994) and type of drug use. Standardized Instruments: Two validated tools were used to gather data on participants' experiences of abuse and substance use. The Childhood Trauma Questionnaire (CTQ) instrument demonstrated acceptable reliability coefficients: .87 for emotional neglect, .76 for sexual abuse, .73

for emotional abuse, .73 for parental neglect, and physical abuse measures. Confirmatory factor analysis was carried out to confirm the existing dimensions of the instrument (physical abuse, emotional neglect, emotional abuse, parental neglect, and sexual abuse). Using the suppressed coefficient method, all items loaded up to .3, which is acceptable, and all items were retained.

Drug Abuse Screening Test (DAST-20) is a standardized instrument for screening and possible diagnosis of substance use and disorder developed by Skinner (1982). It is a 20-item version of the originally developed 28-item DAST which is a self-report instrument for population screening, clinical case finding and treatment evaluation. It assesses the use or prescription or over-the-counter drugs such as cannabis, alcohol, marijuana, cocaine, heroin in non-clinical and clinical population. The administration of the instrument takes approximately 5 minutes and may be given in self-report or interview format to provide a quick index of drug abuse problems. Participants are requested to respond to the 20 items in Yes or No format, with Yes implying 1 and No implying 0 score. Total scores in obtained by summing all the items that are endorsed in the direction of increased drug problem. DAST total scores is simply the scores of the 20 items, and so scores ranges from 0-20. A score of zero indicates that no evidence of drug-related problem was reported. As the DAST scores increases, there is a corresponding increase in the level of the drug problem reported. Scores from 11-15 indicates substantial substance use problem, while 16-20 indicates severe substance use problem.
The 20-item version of DAST is a valid and reliable instrument for assessing substance use disorder, as demonstrated in diverse cultures and populations. The validity of DAST-20 has been established in Nigerian population among military veterans with substances use problems, with acceptable reliability coefficient (Abel et al., 2019). Elsewhere, reliability coefficient of .09 has been reported (Skinner, 2001) and the scale has shown to have excellent predictive validity in clinical population (Campbell, Walker & Egede, 2016). However, in order to situate the instrument for effective use in the current population, the researcher conducted a pilot study with 50 participants where DAST-20 and other related instruments were administered and analysed. The result of the pilot study confirmed that this scale is reliable and valid and therefore can be used among Nigerian female youth population. Specifically, a convergent validity was established between DAST and Alcohol, Smoking and Substance Involvement Screening (ASSIST), with average loading of 0.88 for ASSIST and 0.78 for DAST which are both greater than .70. A total correlation of 0.225 and correlation square of 0.474341 was found, which shows that there is a convergent validity of DAST-20 and ASSIST, a similar measure of substance use problem. Furthermore, pilot study result showed a spilt half reliability coefficient of .87 for the first half and .81 for the second half with overall Cronbach's alpha of .92 accordingly. In summary, the result of the pilot study has shown that these scales are valid and reliable measure of the constructs and so were utilized to collect data.

Procedure for data collection:

Permission to conduct the research was obtained from all four centres. At each centre, eligible participants (based on the inclusion and exclusion criteria) were contacted and subsequently provided informed consent. Those who declined had their wishes respected and did not participate in the study. Upon completion and submission of the informed consent form, those who indicated interest in participating were provided with the questionnaire on designated days to fill out. They were properly informed about the study, its procedures, objectives, and their right to withdraw should they feel uncomfortable at any point. Participation was voluntary, and confidentiality of information was given top priority throughout the study. The data collection process was conducted transparently and with a do-no-harm approach. Given the nature of the research, the principal researcher personally administered the questionnaire to the female youths in the designated facilities on clinic days. Overall, the data administration took four weeks. Of the 174 questionnaires administered, 159 were returned with usable data, representing about a 90% response rate.

Method of Data Analysis

Following the completion of data collection, the Statistical Package for Social Sciences (SPSS-V24) was used for data analysis. Demographic data were analyzed using frequency counts, percentages, mean and standard deviation. Multiple correlational analyses were done to establish the extent of relationship among research variables. Hierarchical regression was used to test hypothesis 1 at 01 and .05 levels of statistical significance.

Results

The study hypothesized that that adverse childhood experiences (physical abuse, emotional abuse, emotional neglect, parental neglect and sexual abuse) will significantly independently and positively predict substance use disorder problem among female youths in Plateau State. This hypothesis was tested using Hierarchical Regression Statistics and the result is presented in table 1.1 below

Table 1.1

Summary of Hierarchical Multiple Regression Analysis Showing Significant Prediction of Adverse Childhood Experiences on Substance Use Disorder Problem among Female Youths in Plateau State.

DV	Predictors	β	t	P	R	R^2	Δ^{R_2}	F	p
Substance Use Disorder									
	Age	-.052	-.650	>.05					
	Education	.057	.708	>.05	**.078**	**.006**	**.006**	**.473**	**>.05**
MODEL II									
	Age	-.052	-.650	>.05					
	Education	.070	.867	>.05					
	Physical Abuse	.182	2.167	<.05					
	Emo. Abuse	.073	1.037	<.05	**.226**	**.051**	**.045**	**2.166**	**<.05**
	Emo. Neglect	.098	1.156	<.05					
	Parent Neglect	.111	1.120	<.05					
	Sexual Abuse	-.055	-.584	>.05					

**** p is significant at the 0.01 level (One-tailed)**

*** p is significant at the 0.05 level (One-tailed)**

Table 1.1 presents the results of a hierarchical multiple regression on the predictive role of early adverse childhood experiences on substance use disorder among female youths in Plateau State. The first model was for statistical control, considering that age and education have shown to affect substance use among youths. Thus, to control for the effect of these variables on the major variable of interest, age and educational level of participants were designated in the first model (Model I), and their independent and joint influences were observed. The result indicated an insignificant independent influence of age (β =*-.052, t*= -650; p >.05) and educational level β =.057, t= 708; p >.05) on participants substance use problems. Similarly, both variables

made an insignificant joint contribution to the model on SUD [$F_{(2, 156)} = .473$; $R^2=.006$; $p > .05$], implying that educational attainment or age of the female youths constitute no significant problem or has no major contribution to their substance use problem; rather, this could be attributed to the main variables.

To ascertain this, adverse childhood experiences (which were assessed as first main variable) were entered into the second model (Model II). With the introduction of these five early traumatic experiences (physical abuse, emotional abuse, emotional neglect, parental neglect and sexual abuse) in the model, the influence of two control variables were still insignificant; however, early traumatic experiences made a significant joint contribution to the model [$R^2 =.051$, $\Delta^{R_2}=045$, $F_{(5,151)} = 2.166$, $P< .05$], accounting for 5% change in explaining substance use problem among the female youths. This result clearly means that early traumatic experiences constitute a significant risk to future substance use problems in female youths after controlling for potential confounders.

Further results indicated that, except for early sexual abuse, all other traumatic experiences significantly and positively predicted substance use disorder among the female youths. Specifically, traumatic experiences relating to early physical abuse (β=-.182, t =2.167), emotional abuse (β=-.073, t =1.037), emotional neglect (β=-.098, t = 1.156) and parental neglect (β=-.111, t = 1.120) made significant independent contribution, implying that these experiences are independent predictors of the reported problem. An examination of the Beta values (β values) further revealed that female youths' early experience of physical abuse made the greatest impact on their reported SUD (18%), followed by parental neglect (11%) then emotional neglect (09%) and lastly emotional abuse (07%). This means that within the context of early trauma, female youths who are physically abused and face neglect from parents stands a higher risk of engaging in future substance use behaviour that may progress to disorder. This result is in line with the postulation of hypothesis one and based on it, the hypothesis is thus confirmed.

Discussion of findings

In Nigeria and plateau state in particular, a plethora of anecdotal and empirical evidence exist on increasing SUD among young women (Nwoga et al., 2018). However, little is known about psychosocial factors that confer risk. This thesis therefore examined early adverse childhood experiences (physical abuse, emotional abuse, emotional neglect, parental neglect). The findings of this study provide compelling evidence that adverse childhood experiences significantly predict Substance Use Disorder among female youths in Plateau State. The confirmation of the study hypothesis aligns with the theoretical postulations of Bronfenbrenner's (1977) Ecological Theory, which posits that different levels of a child's environment can play a role in shaping behaviours. Specifically, negative environmental events such as early neglect or emotional abuse from parents at the micro level can promote negative behaviours including harmful substance use behaviour in adults.

The research hypothesis was confirmed, as result of hierarchical regression analysis which revealed that adverse childhood experiences were significant independent and joint predictors of substance use disorder, explaining about 5% of the observed variance. This means that young women who are exposed to early traumatic events are likely resort to problematic substance use. This is consistent with previous research highlighting the long-term impact of traumatic experiences on externalizing problems, including aggressive behaviours and substance use problems. For instance, Neuner et al., (2014) have shown that 70% of adolescents who were receiving treatment for substance use had a history of traumatic or adverse childhood event. These events are harmful (Hughes et al., 2017) and children who are exposed to them even stand a greater risk for developing various negative health outcomes in adulthood including substance use disorder (Quinn et al., 2019; Bryant et al., 2020). According Leza et al (2021), children raised from crises-ridden zones are likely to experience adverse

experiences, such as physical abuse, parental neglect and sexual abuse. These experiences can be overwhelming and in line with the Self-medication hypothesis, could propel maladaptive substance use.

The finding typifies the existing context in Plateau State where many people (including young women) have consistently experienced adverse events due to hostilities between farmers and herders across the state. Previous research evidence indicates that a significant number of people in Plateau State have experienced increasing acts of psychological and physical violence, resulting to forced displacement, emotional and physical neglect of children, sexual exploitation, parental separation and other forms of adversities (Nwoga et al., 2018). These hostilities are likely to breed physical neglect (Dube, 2002) separation from primary source of support due to death of family members or forced displacement (Dube, 2002), which would consequentially increase vulnerability to early abuses of neglect from parents. Thus, these cumulative effects of multiple trauma exposures could produce long-term behavioural consequences including to substance use disorder.

The result further highlighted that, apart from sexual abuse, early adverse experiences of physical abuse, emotional abuse, emotional neglect and parental neglect emerged as significant independent predictors of SUD among the female youths. In fact, physical abuse was found to have more impact on substance use problems and this can be justified by both empirical and practical evidence. Empirically, the result aligns with the research findings of Kilpatrick (2013) who found that teens who had experienced physical or sexual abuse/assault were three times more likely to report past or current substance abuse than those without this abuse. Similarly, the finding corroborates existing literature that physical abuse predicts cannabis use (Anderson et al., 2020), through coping motives rather than enhancement or social motives (Meshesha et al., Stein, 2019). This means that children who experience physical abuse either from parents or community members are likely to adopt negative coping strategies to manage the trauma. Therefore, as reported by Shin et al., (2017) experiencing physical abuse early in life is a pathway for future development of substance use.

Displacement is likely to breed high incidence of physical abuse as many displaced persons become homeless, often moving around in search of food and shelter which could expose them to maltreatment and subsequent frustration that promotes drug use. In this way, the current finding supported Abajobir et al., (2017) who found that physical maltreatment during childhood was related to injection drug use among youths, and comparatively higher among females. This demonstrates gender differences in experience of ACEs and substance use problems, and further confirms research evidence that, in relative to men, traumatized women are more likely to experience behavioural problems (Nakazawa, 2015). Practically, the elevated impact of physical abuse on substance use disorder could be attributed to the nature of hostility characterized the research area. Many youths who were victims of the crises on the plateau have incurred physical scars, either by the perpetrators or frustrated biological/foster parents. Therefore, this devastation and frustration could increase intentional use of physical force or violence against the children resulting to harm, injury or prolonged trauma, with long-term impact on current substance use problems.

The finding that physical abuse emerged as a significant predictor of SUD among female youths is particularly noteworthy. This suggests that female youths who experienced physical abuse from parents or community members during childhood stand a higher risk of engaging in future substance use behaviour that may progress to disorder. This result confirms hypothesis one and validates the empirical link between early physical trauma and later maladaptive coping mechanisms. The high prevalence of alcohol use disorder (44.7%) among the participants may reflect the accessibility and social acceptability of alcohol as a coping mechanism for trauma survivors. This is consistent with global trends showing that over 40% of the global population are involved in illicit use of various substances, especially alcohol.

Furthermore, the result indicates a significant impact of parental neglect on substance use problems among the female youths, implying that, more parental neglect was associated with greater substance use problem. This result is consistent with previous studies that reported strong association between parental neglect and substance use dependence (Newbury et al., 2018; Billis et al., 2014). The finding has highlighted that when parents fail to provide for their children needs, including educational, physical and medical needs, it could create a sense of abandonment, fuelling frustration and trauma that could increase continuous search for external stimulation to fill the void. This situation is likely to promote substance use. Practically, the finding resonates with the situation in Plateau State, where for many years, most parents have been unable to cater for the basic needs of their children. The destruction of economic fabric and means of livelihood for many people have rendered them economically incapacitated and psychosocially unable to provide needed care for their children. This has heightened issues of parental neglect and abandonment in the area (Nwoga et al., 2018), which is likely to create long-term impact that transcend to adulthood. Thus, finding revealing high impact of parental neglect on SUD among the female youths is consistent with both empirical and anecdotal evidence pointing to the problem. Additionally, the result can be explained within the context of Abajobir et al., (2017) research findings revealing that women are more vulnerable than men to experience behavioural problems proceeding trauma. Young women are heavily dependent on their parents for support and care, and situations that disrupt this order could lead to heightened frustration that overwhelms utilization of adaptive coping method, thus creating a pathway between parental neglect and harzadeous substance use.

In addition, the finding revealed a significant predictive influence of emotional neglect and substance use disorder among female youths in Plateau State. This means that consistent neglect of children emotional needs or inability to meet those needs could result to substance use disorder. This is consistent with previous studies linking lack of emotional support or availability and substance use in male population. For instance, the finding is consistent with Abajobir et al., (2017), Oshri et al., (2018) studies which reported a strong positive association between emotional neglect and cannabis use and dependence. The finding also aligns with Musa et al., (2018) research finding which demonstrated that emotional neglect was associated with increased drug use for males and females. This result therefore aligns with empirical research on emotional neglect and could be more explainable in female participants who are considered more emotionally vulnerable during trauma.

Emotional neglect could manifest through lack of emotional support (failing to provide comfort, reassurance or validation), ignoring emotional needs of children or being emotionally unresponsive or distant (Abajobir et al.,2017). Lack of emotional support or emotional neglect is likely to affect self-esteem, social relationship and ability to effectively manage emotions resulting from trauma (Abajobir et al.,2017), which could increase vulnerability to maladaptive coping strategies. Situating this within the context of plateau state, the possible explanation for strong effect of emotional neglect on substance use disorder could be attributed to widespread emotional unavailability and lack of reassurance or disregard to emotional needs that many of them may have long experienced at different levels of the crises. The situation might have overwhelmed their emotions, coupled with and inconsistent or lack of emotional support and reassurance from parents or community members to handle their dire emotional needs, could have pushed for the current problematic substance use behaviour.

The result indicating significant predictive influence of emotional abuse on substance use disorder implies that when female youths are exposed to emotional abuse- emotional manipulation, isolation, insults- they are likely to indulge in substance use. This aligns with Goldstein et al., (2013) findings that, similar to physical abuse, emotional abuse is significantly associated with alcohol use disorder. This is further supported by Shin et al., (2019) findings which rather reported an indirect influence. According to them emotional abuse was associated with behavioural dysregulation, which in turn was associated with binge drinking, problematic alcohol

consumption, and SUD. This means that children with history of emotional abuse also suffer from managing emotion relating to trauma, and lack of emotional management could increase negative coping through substance use. Due to the perennial crises, many of the female youths might have become isolated or been exposed to emotional manipulation or insults as they search for survival. This could build up to the existing problem, exacerbating the trauma and increasing frustration that consequently supports substance use behaviours. Thus, emotional abuse could become a significant factor to SUD among the female youths.

However, this research did not find significant influence of sexual abuse on SUD among the female youths, which is consistent with previous research which found that sexual abuse is not an independent predictor of substance use problems (Abajobir et al., 2017; Musa et al., 2018; Shin et al., 2019). However, the finding is not supported by several empirical research which revealed that childhood sexual abuse increases the use of substance use (Abajobir et al., 2017; Bellis et al., 2014; Kappel et al., 2021). Interestingly, in a prospective cohort study, Smith et al136 found that sexual abuse specifically during adolescence predicted drug use in early adulthood. The contradiction in results could be attributed to setting, population and cultural limitations. Unlike most of these studies where sample were drawn from larger population of male youths with liberal culture, the present research concentrated on female participants drawn from a conservative culture where incidences of sexual abuse may be underreported. This may affect validity of data and eventual research findings.

Conclusion

Based on the findings, it is the position of this study that, adverse childhood events are significant negative influencers of substance use disorder among female youths in Plateau State. On this premise, this study has concluded that adverse childhood experiences, such as physical abuse, emotional abuse, emotional neglect and parental neglect are potentially harmful and have long-term impact on subsequent youth substance use problems. Thus, children who experience these traumatic events early in life would most likely develop a substance use disorder during youthful or even adult period. The non-significance of sexual abuse as a predictor should not be interpreted as evidence of its irrelevance, but rather as a call for more sensitive, culturally appropriate methods of assessing and addressing sexual trauma in conservative settings.

Recommendations

Built upon findings from the study, the following recommendations are advanced to control the rate of substance use problems among female youths in plateau state.

(i) Children who are exposed to adverse childhood experiences should be screened and given appropriate trauma-focused therapy to suppress the impact of these experiences on their future behavioural and social problems.

(ii) This research has strong implications for parenting. It has shown that being physically and emotionally abusive to children and neglecting them in times of trauma can only increase their vulnerability to substance use. Therefore, regardless the challenges, parents must show care, love, affection and encouragement to their children to prevent the possibility of developing a substance use disorder.

(iii) In a similar vein, the study recommends close child monitoring and protection by parents and relatives. Parents must ensure that children are not exposed to toxic and contagious friends who take advantage of vulnerabilities to offer damaging support. This will prevent the damage that toxic friends support can portend.

(iv) The study further recommends the intervention of relevant stakeholders in mental health, including clinical psychologists, government and non-governmental organizations to assist ravaged families/communities in identifying and managing early trauma in children so that their long-term

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