

# Influence of Parenting Style and Substance Use on Antisocial Behaviour among Inmates in Selected Correctional Centres in Ogun State

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## Abstract

*This study investigated the influence of parenting style and substance use on antisocial behaviour among inmates of selected correctional centers in Ogun State, Nigeria. Three hypotheses were formulated for the study. The study adopted a descriptive survey research design. The study population comprised inmates from four correctional facilities in Ogun State, Nigeria namely; Ilaro correctional facility, New Abeokuta correctional centre, Abeokuta, Ijebu Ode correctional facility and Sagamu correctional facility. A simple random sampling technique was used to select 200 inmates from each correctional facilities in Ogun state using Taro Yamane formular which formed the sample for the study. The study employed a structured questionnaire divided into four sections titled "Influence of Parenting Style and Substance use on Antisocial Behaviour among Inmates." Face and construct validity were ensured and a reliability alpha coefficient of 0.75, 0.86 and 0.98 were generated for each variable in section B, C and D using Cronbach's alpha. Direct administration and retrieval method were used for data collection. Data collected were analysed using inferential statistical analysis methods of linear regression. The findings revealed that the null hypotheses were rejected for hypothesis 1, hypothesis 2 and hypothesis 3. The study concluded that parenting style and substance use relatively and jointly contribute to antisocial behaviour among inmates of selected correctional centres in Ogun State. It further recommended that targeted interventions by Government agencies, schools, non-governmental organizations and community health centres within correctional centres that incorporate parenting education programs and promote authoritative parenting practices, such as warmth, consistency, and discipline should be established.*

**Keywords:** *antisocial behaviour, correctional centres, inmates, parenting style, substance use*

## 1. Introduction

Every country has established an institution where they keep offenders. These include individuals who are awaiting trial or who are under trial in the criminal courts. These are called "correctional centres" or "prisons." Correctional centres or prisons are established for various reasons, which include, but are not limited to, educating offenders, preventing reoffending, and, most commonly, the correction or rehabilitation of inmates. In modern times, many 'prisons' are no longer referred to as prisons. Rather, they are called 'correctional facilities, services or centres.'

Misbehaviour by inmates in jails often causes issues both for other prisoners and for the staff (Arbach-Lucioni, Martinez-García & Andrés-Pueyo, 2012). Antisocial behaviour is a mental health condition characterized by a lack of respect for social standards regarding appropriate behaviour, impatience, aggression, impulsivity, contempt for others' feelings and safety, as well as disregard for one's safety, and consequences of one's actions (Fonagy *et al.*, 2020). Additionally, it is a pervasive pattern of disregard for societal rules and the rights of others, characterized by exploitative, guiltless behaviour,

deceitful actions, repeat criminality, and consistent social irresponsibility (Gobin *et al.*, 2015; Sadock, 2015).

Antisocial behaviours are actions that violate societal norms, laws, or the rights of others, often characterized by aggression, deceitfulness, impulsivity, and a lack of remorse (Fisher, Torricco & Hany, 2024). These behaviours can manifest in various forms, including criminal activities, physical violence, destruction of property, and persistent patterns of rule-breaking (Ojo, 2015). Antisocial behaviours are not limited to overt acts of defiance but may also include covert behaviours, such as lying and manipulation, which disrupt social harmony (American Psychiatric Association, 2022). According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), antisocial behaviour is a core feature of Antisocial Personality Disorder (ASPD), where individuals consistently disregard the safety and well-being of others (American Psychiatric Association, 2022). However, antisocial behaviour is not exclusive to clinical diagnoses and is often studied as a broader spectrum of actions observable in both clinical and non-clinical populations (Otto *et al.*, 2021).

Antisocial behaviour describes all behaviours, attitudes, and personality traits that people engage in that appear to be dysfunctional, in that they often have negative interpersonal and societal outcomes (Hashmani & Jonason, 2019). These behaviours, which are termed antisocial, are conducts that are hostile to other people, their property, or violate social norms, because they cause bodily harm or mental anguish to other people or their possessions (Cabrera *et al.*, 2017). This kind of behaviour can take many different forms, such as lying, dangerous sexual behaviour like having multiple sexual partners, breaking the law, using drugs, and doing things that bother other people, like stealing, damaging property, cheating, or being verbally or physically aggressive (Pears, Kim & Fisher, 2016).

The psychologist has long held an interest in parenting and its effects on the socialization and the development of their youngsters (Sazelo *et al.*, 2023). Parenting is a complex task, particularly when considering the different elements, processes, and dynamics it comprises (Pinquart, 2017; Rose *et al.*, 2018). Parenting style is defined as strategies people use in rearing their children. Usually, parents are unaware of the effects of their parenting style on children's behaviour (Kiran, Farooqi & Ahmed, 2019). A parenting style is a psychological construct speaking to standard procedures that parents use in youngster raising (Faraz & Shahanawaz, 2015).

There are four types of parenting styles, which include authoritarian, authoritative, permissive and neglectful parenting styles (Baumrind, 2005; Eze, 2021). Authoritarian parenting is where parents establish the rules and expect that children will follow them without exception. Children have little or no involvement in problem-solving challenges or obstacles (Sanvictores & Mendez, 2022). Parents expect that children will follow all the rules all the time. If children challenge the rules or ask why such rules are obeyed, they are usually told, "Because I said so." Children are not usually given the reasons for the rules and there is little room for any negotiation (Eze, 2021). The second type of parenting is authoritative parenting style. Here, parents establish rules that children are expected to follow. There are situations where there may be some exceptions to the rule. They often tell children the reasons for the rules and are more willing to consider a child's feelings when setting limits (Sanvictores & Mendez, 2022). Authoritative parents tend to use consequences instead of punishments, more of positive consequences to reinforce good behaviour and may be more willing than authoritarian parents to use reward systems and praise (Eze, 2021).

Permissive parenting style is the third type of parenting, where parents do not offer much discipline, but tend to be lenient and may only step in when there is a serious problem. There may be few consequences for misbehaviour because parents have an attitude of "kids will be kids" (Janius, Jemat & Amdan, 2024). Permissive parents may take on more of a friend role than a parent role. They may encourage their children to talk with them about their problems but may not discourage a lot of bad behaviour (Kuppens & Ceulemans, 2019). Another parenting style is the neglectful parenting style where parents tend to be neglectful and often do not meet their children's basic needs and may expect

children to raise themselves (Sanvictores & Mendez, 2022). Sometimes, this may be due to parents' mental health issues or substance abuse problems. They may also lack knowledge about parenting and child development or may feel overwhelmed by life's other problems. Neglectful parents tend to have little knowledge of what their children are doing (Eze, 2021). Based on Tumusabe, Kazara and Moses (2022), neglectful parenting is a style where parents do not address their child's needs or wants beyond providing food, clothing, and shelter. These children are given little guidance, discipline or nurturing from their parents. And in many cases, children are left to raise themselves and make major and minor decisions. It is a contentious parenting style, and because of that, it is easy to pass judgment on these parents. However, whether you are an authoritarian, authoritative, permissive or neglectful parent or know someone who is, remember that this parenting style is not always intentional (Janius, Jemat & Amdan, 2024).

Parenting style is a critical determinant of an individual's psychological, social, and behavioural development (Sanvictores & Mendez, 2022). It shapes how children interact with their environment, their emotional well-being, and the overall trajectory of their lives (Kuppens & Ceulemans, 2019). Parenting style significantly influences a child's ability to form healthy social relationships. According to Li, Wang and Li (2021), authoritative parenting, which is characterized by high levels of responsiveness and appropriate discipline, fosters strong social competence in children. This style encourages open communication, teaching children how to navigate social settings with empathy and confidence (Janius, Jemat & Amdan, 2024). Parenting style directly impacts the likelihood of engaging in antisocial behaviours such as substance use, aggression, and criminality. As noted by Wang, Qian and Chen (2020), neglectful or authoritarian parenting increases the risk of antisocial tendencies, as these styles either fail to provide adequate supervision or create resentment through excessive control. The impact of parenting extends well into adulthood, shaping personality traits and coping mechanisms (Tumusabe, Kazara, & Moses, 2022). Secure attachments formed under authoritative parenting create a foundation for responsible behaviour and adaptive coping strategies (Chen, Liu & Zheng, 2022).

Poor parenting styles by parents would increase children's preference to commit antisocial behaviours. Just like parenting style, studies have confirmed the relationship between antisocial behaviour and substance use (Oluwole, Habibat & Babatunde, 2017), though a complex one. Substance use has been acknowledged not only as a global social and public health problem but is also associated with antisocial behaviours (Dahlman *et al.*, 2021). Antisocial behaviours and substance use appear to occur regularly in serious offenders; that is, offenders with high scores on one self-report measure also have high scores on the other self-report measure (Ukeh, 2021).

Substance abuse, also called drug abuse, is a term simply used to denote the use of certain chemicals for the purpose of creating pleasurable effects in the brain (Oluwasanmi, 2022). Over 190 million drug users can be found around the globe; this number is steadily on the increase exponentially, especially among youth (Mandal, 2021). Substance use is the application of a drug to cure an illness, prevent a disease or improve health, in line with prescription of a qualified medical doctor. However, substance use becomes an abuse when substance is taken for reasons other than medical purpose, in an amount, strength, frequency or manner, capable of causing damage to the physical or mental functioning of an individual (Sahu & Sahu, 2016). Substance abuse can result in substance addiction. This usually happens when the abuser develops tolerance and dependence. Substance tolerance is a condition where the user needs more and more of the drug to experience the same effect (Sahu & Sahu, 2016). When this happens, the smaller quantities which were sufficient earlier no longer satisfy the user and they are ultimately compelled to increase the quantity of drug/substance intake. Gradually, dependence on the drug develops.

In Nigeria, substance use among prisoners is assuming an alarming dimension as evidenced by the rate of recidivism as well as the prevalence of drug dependency among ex-prisoners (Ugwuoke & Mfon, 2018). Substance use has become a recurrent problem which poses a risk to public safety and by

extension, national security. Even with the security apparatus on ground in the various prisons nationwide, these prohibited substances still find their way into the prisons (Ugwuoke & Otodo, 2016). With the water tight security set-up in our prisons, it is expected that these substances should be detected; unfortunately, drugs and other psychotropic substances still make their ways through the eagle-eyed security into our prison yards. According to a study by Ugwuoke and Otodo (2016), the prevalence of substance use among prisoners is high. Different classes of drugs are consumed by prison inmates and this poses a great security to the immediate prison environment, and the nation at large. Apart from posing serious security malady, drug use among inmates also degrades their physical and mental health, and defeats the essence of imprisonment which is for reformation and rehabilitation. Most prisoners who use illicit substances had learned the habit before imprisonment, and when they come into prison, they tend to continue with the habit (Ugwuoke & Otodo, 2016). A considerable number of prisoners not only continue drug use in prison but practice high-risk behaviour such as injecting and needle sharing. Although there are limited data on the drug problem in prisons, studies indicate that up to 50-60% of drug abusers still use drugs in prison with about one third of them injecting drugs (Ugwuoke & Mfon, 2018).

The correctional centre system is a home for idle minds due to lack of what to do, lack of workshop facilities and lack of good skills, which the inmates would like to learn, no good recreational facilities and other amenities. It is a well-established fact that the greatness of any nation is judged by the kind of treatment given to persons in her correctional centres (Akporaro, Skiru & Ubong, 2023). With the increase in antisocial behaviour among inmates, there is a need to understudy variables that influence it, hence, the reason for considering parenting styles and substance use.

### **1.1. Statement of Problem of the Study**

Antisocial behaviour, characterized by persistent patterns of disregard for societal norms and the rights of others, remains a critical challenge in understanding and addressing the psychological and social dimensions of inmates' rehabilitation. Despite extensive research into the factors contributing to antisocial behaviour, the roles of parenting style and substance use remain inadequately explored, particularly within incarcerated populations. Existing studies have largely focused on general populations (Edens *et al.*, 2015; Ikediashi & Akande, 2015; Cabrera *et al.*, 2017), leaving a gap in knowledge about how these variables interact specifically among inmates, a subgroup with unique psychosocial experiences.

Research highlights that parenting style is a critical determinant of behavioural outcomes, with authoritative parenting often associated with positive behaviours, while neglectful and authoritarian parenting styles may predispose individuals to antisocial tendencies (Kuppens & Ceulemans, 2019; Sanvictores & Mendez, 2022). Similarly, substance use has been established as a predictor of deviant behaviours, with individuals often engaging in criminal activities to sustain addiction (de Jong, Bernasco & Lammers, 2020; Allen *et al.*, 2021). However, there is a paucity of studies that examine how these two variables - parenting style and substance use -independently and jointly contribute to antisocial behaviour among inmates.

Furthermore, the mechanisms through which parenting styles and substance use interact to influence antisocial behaviour remain poorly understood. For example, it is unclear whether substance use acts as a mediating factor between parenting style and antisocial behaviour or if its influence is entirely independent. This knowledge gap limits the development of targeted intervention strategies aimed at reducing recidivism and promoting the reintegration of inmates into society.

## **2. Literature Review**

### **2.1. Concept of Parenting Style**

Parenting is a complex task, involving multiple elements, processes, and dynamics (Rose *et al.*, 2018). Parenting style refers to the emotional climate in which parents raise their children (Pinquart, 2017). It includes the strategies and approaches parents use to guide, control, and socialize their children. These styles are shaped by cultural, social, and individual factors, and they play a critical role in the psychological and behavioral development of children (Pinquart, 2017). Importantly, parenting style has a significant influence on the likelihood of children engaging in antisocial behaviors such as aggression, rule-breaking, and substance abuse (Sorkhabi & Koc, 2021).

Parenting style can be broadly defined as the overall approach parents adopt to guide, discipline, and nurture their children, shaped by cultural practices and personal experiences, and often ranging from authoritative to authoritarian orientations (Martinez & Gonzalez, 2018). It involves the guidelines parents establish for their children's behaviour, which mirror parental values about caregiving, discipline, and expectations (Harrison, Wang, & Liu, 2021). From a psychosocial perspective, parenting style plays a crucial role in shaping children's emotional regulation and self-worth (Jenkins, Harper & McDonald, 2019). It can also be understood as the interactive relationship between caregiver and child that directs behavioural and developmental outcomes (Cohen & Kessler, 2018). Moreover, it represents the broader framework in which parents balance control, support, and autonomy (Beck & Richards, 2020). At its core, parenting style reflects the emotional climate parents create through their attitudes, behaviors, and expectations within the home.

### **2.2. Concept of Substance Use**

Substance use is commonly understood as the ingestion of psychoactive substances that alter an individual's mental state, perception, and behaviour (Jones, Williams & Lewis, 2017). It is often described as a pattern of consuming drugs, alcohol, or tobacco that can result in both short- and long-term negative health consequences. Beyond this, it is considered a complex phenomenon influenced by factors such as age, gender, culture, and environment, and it becomes problematic when habitual consumption escalates into abuse despite awareness of its harmful effects (Nguyen & Kim, 2021). As a major public health concern, substance use has been linked to higher rates of physical illnesses, mental health disorders, and social challenges (Rodriguez, Smith, & Johnson, 2022). It can also be understood as the intentional use of substances such as alcohol or drugs for pleasure or stress relief, with social influences like peer pressure and family environment shaping its prevalence among adolescents (Green & Thompson, 2019). Furthermore, the repeated use of substances despite awareness of their harmful consequences highlights its addictive nature (Patel & Sharma, 2018).

Although drug abuse is widely recognized as a health problem that should be addressed through interventions grounded in health and social welfare policies while respecting the human rights of users, appropriate strategies remain insufficient. Onyegbula (2017) emphasized concerns raised by Professor Obot, Director of the Centre for Research and Information on Substance Abuse (CRISA), regarding the rapid increase of substance abuse in Nigeria without corresponding access to treatment. This view was echoed by Glen Prichard, UNODC Project Coordinator on Drugs and Related Organised Crime in Nigeria, who noted that treatment access was critically limited. In fact, only 1,000 people were reported to have accessed drug treatment in 2016 in a country of about 180 million people, revealing a substantial treatment gap (Onyegbula, 2017).

### **2.3. The Concept of Antisocial Behaviour**

Antisocial behaviour is generally understood as actions that violate societal rules and the fundamental rights of others (Amaefule, 2022). More broadly, it refers to attitudes and behaviours that contravene social norms as well as the personal or property rights of individuals. Such tendencies often arise from

an inability to respect the rights of others (Fortin, 2023) and may manifest in forms such as assault, vandalism, arson, theft, armed robbery, and other delinquent acts that undermine community order (Gaik *et al.*, 2020). Antisocial behaviour also encompasses deliberate actions that disregard the welfare of others, including frequent temper tantrums, bullying, and disruptive conduct, with parental influence and environmental exposure to violence playing a critical role in its development (Chang, Park & Lee, 2020).

These behaviours typically emerge during adolescence, a stage marked by profound biological, cognitive, and psychosocial changes that influence emotional regulation, impulse control, and risk-taking tendencies (Odgers *et al.*, 2018). Beyond developmental changes, epigenetic, structural, psychological, and social factors all contribute to the likelihood of antisocial conduct (Sijtsema & Lindenberg, 2018). Developmental theories of crime suggest that while many adolescents eventually desist, a smaller group persists into adulthood, maintaining antisocial patterns over time (Moffitt, 2018). Supporting evidence from Ireland indicates that antisocial behaviours reaching the level of minor criminal offences peak between the ages of 15 and 20, with most offenders being first-timers who do not reoffend. Ultimately, antisocial behaviour has far-reaching consequences not only for those directly involved - who may face marginalization, stigma, and legal sanctions - but also for their families and communities, whose cohesion and well-being are often disrupted (Odgers *et al.*, 2018)

#### **2.4. Parental Style and Anti-Social Behaviour**

Research evidence shows that parenting style has a strong relationship with children's behavioural outcomes. A study conducted among 681 mothers of primary school children in Tehran, Iran, revealed that the authoritative parenting style - characterized by high responsiveness and high demands - was linked to fewer internalizing and externalizing symptoms in children (Alizadeh *et al.*, 2011). This aligns with Baumrind's (1971) earlier work, which highlighted the effectiveness of authoritative parenting compared to authoritarian approaches, particularly in helping children avoid drug-related problems.

Substance use within correctional facilities has also been identified as a major social and security concern. A literature review by Ugwuoke and Mfon (2018) found that incarcerated individuals primarily abused caffeine, alcohol, cigarettes, opioids, and marijuana. The review further noted that many substances were smuggled into prisons by uncooperative staff and visitors, while also proposing strategies to strengthen the Nigerian Prison Service in response to rising cases of drug dependency among inmates.

Antisocial behaviour and prison environments are equally critical to understanding the psychosocial development of young offenders. In a study involving 40 participants from two prisons in South-Western Cameroon, it was found that overcrowding, experiences of abuse, solitary confinement, and the availability of social support significantly shaped the stability of identity among child prisoners, though healthcare services showed no direct negative influence (Njie & Joseph, 2020).

The influence of parenting styles on antisocial personality disorder (ASPD) has also been examined within Nigerian correctional settings. Findings from a survey of 314 inmates in Benue State revealed that permissive parenting significantly predicted ASPD, while authoritative, authoritarian, and uninvolved parenting styles did not (Iveren, Onyi & Apeon, 2024). Similarly, an investigation into psychopathology and personality traits among inmates in Kirikiri prisons showed a high prevalence of mental health challenges, although no statistically significant associations were found between personality traits, parenting styles, and psychopathology (Daramola & Oladimeji, 2022).

Beyond inmates themselves, the consequences of incarceration extend to their children. A study of children with incarcerated fathers reported higher emotional and behavioural difficulties compared to children from non-incarcerated families or families with low dysfunction (Domzalska, Skowronski & Wolańczyk, 2022). Notably, the impact was more pronounced among girls, with parental imprisonment exacerbating behavioural and emotional challenges during adolescence.

## **2.5. Substance Abuse and Anti-Social Behaviour**

The co-occurrence of substance use disorder (SUD) and antisocial personality disorder (ASPD) is a common finding among incarcerated individuals. A study involving 250 inmates diagnosed with the Mini International Neuropsychiatric Inventory (MINI) revealed that 57.6% had SUD and 11.2% had ASPD, with most participants being male (97.6%) and an average age of 35.4 years (Olagunju *et al.*, 2022). Among those with SUD, 35.2% had poly-SUD - most often linked to psychotic and dependence syndromes involving cannabis - while 22.4% had mono-SUD characterized by alcohol, nicotine, or opioid dependence. The study further highlighted that SUD was more prevalent among participants charged with robbery and conviction, whereas ASPD was associated with prior and long-term imprisonment.

High rates of substance use have also been reported in other African prison contexts. In a correctional facility in Jimma, Southwest Ethiopia, a large proportion of inmates were found to have engaged in substance use within the 12 months preceding incarceration, with khat being the most commonly used substance, followed by alcohol, nicotine, and cannabis (Yitayih *et al.*, 2018). Factors such as urban residence, psychopathy, family history of substance use, and low social support were significantly associated with SUD. Despite the psychosocial consequences and health risks, many inmates reported not receiving treatment before imprisonment, pointing to a substantial gap between service needs and availability, and raising concerns about relapse after release.

Evidence from Nigeria further underscores the widespread misuse of substances among prison populations. A survey of 128 inmates in Benue State prisons found that 82.8% reported substance use and misuse for reasons ranging from relieving fatigue, alertness, dejection, and depression to health-related purposes (Awopetu & Ajonye, 2011). These findings highlight the psychosocial drivers of substance abuse among incarcerated populations.

Risk factors such as self-control and peer influence also play a crucial role in inmates' substance use patterns. Research on jail inmates demonstrated that the effect of self-control on substance misuse was fully mediated by the presence of substance-using friends (Malouf, Stuewig & Tangney, 2012). The study further showed that age moderated the association between peer influence and substance misuse: younger inmates were more susceptible to marijuana use through peer influence, while older inmates showed stronger associations with cocaine misuse. These findings emphasize the importance of both intrapersonal and social factors in shaping patterns of substance misuse within correctional settings.

## **2.6. Parenting Style, Substance Use and Antisocial Behaviour**

Parenting style has been shown to influence children's behavioural outcomes significantly. Evidence from a study involving 681 mothers of primary school children in Tehran, Iran, demonstrated that the authoritative parenting style - characterized by high responsiveness and high demands - was associated with fewer internalizing and externalizing symptoms in children (Alizadeh *et al.*, 2011). These findings are consistent with Baumrind's (1971) earlier work, which emphasized the superiority of authoritative parenting over authoritarian approaches, particularly in helping adolescents avoid drug-related problems.

Substance use within prisons has also been identified as a pressing social and security challenge. A literature review examining this issue revealed that inmates commonly used caffeine, alcohol, cigarettes, opioids, and marijuana, with many of these substances entering prisons through the actions of uncooperative staff and visitors (Ugwuoke & Mfon, 2018). The study further recommended strengthening the Nigerian Prison Service to better manage the growing population of inmates struggling with psychoactive drug dependence.

Antisocial behaviour among incarcerated youths has been linked to adverse prison conditions. Findings from a study of 40 minors in two prisons in South-Western Cameroon indicated that factors such as

overcrowding, physical and sexual abuse, solitary confinement, and inadequate social support negatively impacted the development of stable identity among young prisoners, whereas healthcare services did not show a direct negative influence (Njie & Joseph, 2020).

## **2.7. Causes of Antisocial Behaviour**

Rejection by parents has been shown to play a central role in the development of antisocial behaviours, often producing aggressive individuals prone to violence and confrontations. Lack of parental involvement, where parents appear as mere guests in the home, also contributes to this problem, as emotional neglect is frequently substituted by material gifts that fail to address children's psychological needs (Amaefule, 2022). Beyond parental influence, antisocial tendencies may also stem from negative school environments. For instance, disrespectful teachers who discourage collaboration and instead promote unhealthy competition have been linked to the rise of problematic behaviours among students (Amaefule, 2022; Akubue, 2021).

Peer influence further accelerates antisocial behaviour. When children with aggressive tendencies are rejected by their well-adjusted peers, they often form associations with other marginalized youths. These groups normalize and reinforce antisocial conduct and, in many cases, this progression results in gang membership (Farrington, 2015).

Family instability adds another layer of risk. Parental histories of antisocial behaviour, substance abuse, or psychiatric disorders—particularly maternal depression—create environments where antisocial traits flourish. Inconsistent parenting, coercive discipline, single parenthood, divorce, and economic distress have also been linked to behavioural problems in children. Additionally, the widespread exposure of children to media violence through television, movies, the internet, and video games further compounds the problem, contributing significantly to antisocial development.

## **2.8. Objectives of the Study**

The general objective of the study was to investigate the influence of parenting style and substance use on antisocial behaviour among inmates in selected correctional centres in Ogun state, Nigeria. Specifically, the study aimed to:

- examine the influence of parenting style on antisocial behaviour among inmates;
- investigate the influence of substance use on antisocial behaviour among inmates;
- determine the combined influence of parenting style and substance use on antisocial behaviour among inmates of selected correctional centers in Ogun state.

## **2.9. Research Hypotheses**

The study was guided by the following null hypotheses:

H<sub>1</sub>: There is no significant influence of parenting style on antisocial behaviour among inmates of selected correctional centers in Ogun state.

H<sub>2</sub>: There is no significant influence of substance use on antisocial behaviour among inmates of selected correctional centers in Ogun state.

H<sub>3</sub>: There is no significant joint influence of parenting style and substance use on antisocial behaviour among inmates of selected correctional centers in Ogun state.

## **3. Methodology**

The study adopted a descriptive survey research design for the study. The justification for the choice of survey research design is due to the quality nature of the study and data used for the study. This design is appropriate to obtain information and to systematically design the phenomenon. The study population

comprised of 4,488 inmates according to Ogun State Judiciary as announced by the chief judge in May, 2025. Inmates from four correctional facilities in Ogun State namely; Ilaro correctional facility (797), New Abeokuta correctional centre, Abeokuta (999), Ijebu Ode correctional facility (664), Sagamu correctional facility (560) and Ibara (1468). Four correctional centres were sampled for the study namely: Ilaro correctional facility (797), New Abeokuta correctional centre, Abeokuta (999), Ijebu Ode correctional facility (664) and Sagamu correctional facility (560). Taro Yamane formula was used to select a total of 200 inmates using simple random sampling which formed the sample size for the study viz: Sagamu (37), Abeokuta (66), Ilaro (53) and Ijebu Ode (44). This represents an approximate 93% confidence level of the population. From each correctional facilities in Ogun State. The study employed a structured questionnaire divided into four sections titled “Influence of Parenting Style and Substance use on Antisocial Behaviour among Inmates.” The instruments were designed on a four-point Likert-type scale. Direct administration and retrieval method were used for data collection. Validity and reliability of the instruments were ascertained as the content validity of the instrument was carried out and finally given to an expert who ratified and corroborated the adoption of the instrument.

### **3.1. Data Collection Procedure**

Data for the study were obtained through the distribution of standardized questionnaires to selected respondents within the study population. The study employed a structured questionnaire divided into four sections, each targeting specific study variables: socio-demographic information, the Antisocial Behaviour Scale, the Steinberg Parenting Style Questionnaire, and the Drug Abuse Screening Test (DAST-20). The objectives of the study were thoroughly explained to the participants—who were inmates—to ensure clarity, understanding, and compliance. Validation of instrument was done by experts in social sciences and scale development. Face and construct validity were ensured and a reliability alpha coefficient of 0.75, 0.86 and 0.98 were generated for each variables using Cronbach alpha. Ethical approval was sought and obtained from the Ethical Board of the Ogun State Correctional Service, following the established protocols of the correctional facility. All ethical considerations, including confidentiality, informed consent, and voluntary participation, were strictly observed throughout the data collection process. The questionnaires were administered by the researcher, with the assistance of a trained research assistant. The process was carefully supervised to provide clarification if any participant had questions. Upon completion, the questionnaires were retrieved immediately to prevent data loss.

Data Analysis: The data collected were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics, including frequency counts, means, and standard deviations, were used to summarize the socio-demographic characteristics of the respondents. Inferential statistics, specifically regression analysis, were employed to examine the influence of parenting style and substance use on antisocial behaviour. All hypotheses were tested at the 0.05 level of significance.

## **4. Results**

### **4.1. Hypotheses Testing**

H<sub>1</sub>: There is no significant influence of parenting style on antisocial behaviour among inmates of selected correctional centers in Ogun state.

Model	Sum of Squares	N	Df	Mean Square	F	Sig.	R	R Square	Adjusted R Square	Std. Error of the Estimate
Regression	48876.9	200	1	48876.9	70.421	0.000 <sup>b</sup>	0.512 <sup>a</sup>	0.262	0.259	26.3452
Residual	137426		198	694.071						
Total	186303		199							

a. Dependent Variable: Antisocial Behaviour

b. Predictors: (Constant), Parenting Style

Table 1: Linear Regression Analysis showing Influence of Parenting Style on Antisocial Behaviour among Inmates in Selected Correctional Centers in Ogun State; source: Original Research

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	194.664	7.853		24.788	.000
Parenting Style	-.518	.109	-.250	-4.771	.000
Substance Use	-2.904	.251	-.606	-11.583	.000

Dependent Variable: Antisocial Behaviour

Table 2: Coefficient of Multiple Regression Analysis Showing Contributions of Parenting Style on Antisocial Behaviour among Inmates in Selected Correctional Centres in Ogun State; source: Original Research

A simple linear regression was conducted to determine whether parenting style significantly predicts antisocial behaviour among inmates. The result revealed that the model was statistically significant,  $F(1, 198) = 70.42$ ,  $p < 0.001$ , indicating that parenting style is a significant predictor of antisocial behaviour. The model explained approximately 26.2% of the variance in antisocial behaviour ( $R^2 = 0.262$ , Adjusted  $R^2 = 0.259$ ), suggesting a moderate effect size. The regression coefficient for parenting style was negative and significant:  $B = -1.06$ ,  $t(198) = -8.39$ ,  $p < 0.001$ . This implies that as the quality of parenting style (likely more positive/structured) increases, antisocial behaviour significantly decreases among inmates. Specifically, for every one-unit increase in the parenting style score, antisocial behaviour decreases by approximately 1.06 units.

Since the p-value is less than 0.05, the null hypothesis ( $H_0$ ) is rejected. Therefore, there is a significant negative influence of parenting style on antisocial behaviour among inmates of selected correctional centers in Ogun State.

$H_2$ : There is no significant influence of substance use on antisocial behaviour among inmates of selected correctional centers in Ogun state.

Model	Sum of Squares	N	Df	Mean Square	F	Sig.	R	R Square	Adjusted R Square	Std. Error of the Estimate
Regression	95108	200	1	95108	206.496	0.000 <sup>b</sup>	0.714 <sup>a</sup>	0.511	0.508	21.4611
Residual	91194.8		198	460.58						
Total	186303		199							

a. Dependent Variable: Antisocial Behaviour; b. Predictors: (Constant), Substance Use

Table 3: Linear Regression Analysis Showing Influence of Substance Use on Antisocial Behaviour among Inmates of Selected Correctional Centres in Ogun State; source: Original Research

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	178.996	7.515		23.817	0.00
Substance Use	-3.422	0.238	-0.714	-14.37	0.00

a. Dependent Variable: Antisocial Behaviour

Table 4: Coefficient of Multiple Regression Analysis Showing Contributions of Influence of Substance Use on Antisocial Behaviour among Inmates of Selected Correctional Centres in Ogun state; source: Original Research

A simple linear regression analysis was conducted to assess whether substance use significantly predicts antisocial behaviour among inmates. The result showed that the model was statistically significant,  $F(1, 198) = 206.50$ ,  $p < 0.001$ , indicating that substance use has a significant influence on antisocial behaviour. The model explained approximately 51.1% of the variance in antisocial behaviour ( $R^2 = 0.511$ , Adjusted  $R^2 = 0.508$ ), indicating a strong effect size compared to the previous model. The regression coefficient for substance use was statistically significant and negative:  $B = -3.42$ ,  $t(198) = -14.37$ ,  $p < 0.001$ . This means that increased substance use is associated with significantly higher levels of antisocial behaviour (as substance use scores increase, antisocial behaviour decreases numerically due to the inverse coding, or the negative relationship indicates worsening behaviour as substance use increases).

Since the p-value is less than 0.05, the null hypothesis ( $H_0$ ) is rejected. Therefore, substance use significantly predicts antisocial behaviour among inmates of selected correctional centres in Ogun State. The direction of the relationship is negative, suggesting that higher substance use is linked to greater antisocial tendencies.

$H_3$ : There is no significant joint influence of parenting style and substance use on antisocial behaviour among inmates of selected correctional centers in Ogun state.

Model	Sum of Squares	N	Df	Mean Square	F	Sig.	R	R Square	Adjusted R Square	Std. Error of the Estimate
Regression	104555	200	2	52277.4	125.98	0.000 <sup>b</sup>	0.749 <sup>a</sup>	0.561	0.557	20.3707
Residual	81748.2		197	414.965						
Total	186303		199							

a. Dependent Variable: Antisocial Behaviour

b. Predictors: (Constant), Substance Use, Parenting Style

Table 5: Multiple Regression Analysis Showing Joint Influence of Parenting Style and Substance Use on Antisocial Behaviour among Inmates in Selected Correctional Centers in Ogun State; source: Original Research

Model	Coefficients <sup>a</sup>				
	Unstandardized Coefficients	Std. Error	Beta	t	Sig.
(Constant)	194.664	7.853		24.788	0.00
Parenting Style	-0.518	0.109	-0.25	-4.771	0.00
Substance Use	-2.904	0.251	-0.606	-11.583	0.00

a. Dependent Variable: Antisocial Behaviour

Table 6: Coefficient of Multiple Regression Analysis showing contributions of parenting style and substance use on antisocial behaviour among inmates in selected correctional centers in Ogun State

A multiple linear regression was conducted to examine the joint influence of parenting style and substance use on antisocial behaviour among inmates. The regression model was statistically significant,  $F(2, 197) = 125.98$ ,  $p < 0.001$ , indicating that the combination of parenting style and substance use significantly predicts antisocial behaviour. The model accounted for approximately 56.1% of the variance in antisocial behaviour ( $R^2 = 0.561$ , Adjusted  $R^2 = 0.557$ ), reflecting a strong joint effect of the two predictors. Parenting Style was a significant negative predictor of antisocial behaviour:  $B = -0.518$ ,  $t(197) = -4.77$ ,  $p < 0.001$ , indicating that less effective parenting styles are associated with higher levels of antisocial behaviour. Substance use also significantly predicted antisocial behaviour with a stronger effect:  $B = -2.904$ ,  $t(197) = -11.58$ ,  $p < 0.001$ , suggesting that higher levels of substance use are associated with significantly greater antisocial behaviour. Since the overall model is significant and both predictors contributed uniquely and significantly, the null hypothesis ( $H_0$ ) is rejected. This confirms that parenting style and substance use jointly exert a significant influence on antisocial behaviour among inmates of selected correctional centers in Ogun State.

## 5. Discussion of Findings

This study investigated the influence of parenting style and substance use on antisocial behaviour among inmates of selected correctional centers in Ogun State. All three hypotheses formulated were supported with significant results at the 0.05 level.

Hypothesis one revealed a statistically significant negative influence of parenting style on antisocial behaviour among inmates of selected correctional centers in Ogun State. The regression analysis demonstrated that parenting style accounted for approximately 26.2% of the variance in antisocial behaviour ( $R^2 = .262$ ,  $F(1,198) = 70.42$ ,  $p < 0.001$ ), with an inverse relationship ( $\beta = -0.512$ ,  $p < 0.001$ ). This finding implies that antisocial behaviour are not hereditary but can be linked to negative parenting styles. According to Adebajo and Aborisade (2024), parental involvement in the children's lives was found to be influential and contribute to adolescents' healthy psychological growth. This result aligns with previous research asserting that parenting style plays a crucial role in shaping behavioural tendencies, especially during formative years. Baumrind's (1971) typology of parenting - authoritative, authoritarian, permissive, and neglectful - emphasizes that children raised under authoritative parenting (which balances warmth and control) are less likely to develop antisocial tendencies. In contrast, authoritarian or neglectful parenting has been associated with increased risk of deviant behaviours, including aggression, defiance, and criminality. Furthermore, the result reinforces the position of social control theory, which posits that weak family bonds and inadequate supervision foster deviant

behaviours. Alizadeh *et al.* (2011) reported that authoritative parenting - characterized by high responsiveness and demandingness - was associated with fewer internalizing and externalizing behavioural problems among children. Similarly, Baumrind (1971) emphasized the protective effect of authoritative parenting in reducing risky behaviours such as substance misuse during adolescence. These results reinforce the idea that structured and supportive parenting practices create a foundation for adaptive social behaviour, which persists into adulthood. Conversely, the current study's outcome resonates with the findings of Iveren, Onyi and Apeon (2024), who reported that permissive parenting significantly predicted antisocial personality disorder (ASPD) among incarcerated individuals in Benue State. While the present study did not isolate specific parenting styles, the observed negative association suggests that maladaptive parenting - such as permissive or uninvolved styles - may heighten vulnerability to antisocial tendencies. However, this result contrasts with Daramola and Oladimeji (2022), who reported no significant relationship between parenting style and psychopathology among inmates in Kirikiri prisons. The disparity may stem from differences in the operationalization of variables, with the current study focusing specifically on antisocial behaviour rather than broad psychopathological symptom.

In the context of inmates, poor parenting might have resulted in weakened internal controls and moral regulation, making individuals more susceptible to antisocial conduct. Therefore, improving parenting education and early family interventions could serve as preventive measures against the development of antisocial behaviours.

Findings from the second hypothesis showed that substance use had a statistically significant and negative influence on antisocial behaviour among inmates. The regression results indicated that substance use explained 51.1% of the variance in antisocial behaviour ( $R^2 = .511$ ,  $F(1,198) = 206.50$ ,  $p < 0.001$ ), with a strong inverse relationship ( $\beta = -0.714$ ,  $p < 0.001$ ). This suggests that higher levels of substance use are strongly associated with increased antisocial behaviour among the inmate population. Okoro *et al.* (2020) previously reported that there is a high prevalence of psychoactive substance use and disorders among new prison inmates with tobacco, cannabis and alcohol as the common ones. This result supports existing literature that has consistently linked substance use with heightened antisocial and criminal behaviours. According to the psychopharmacological model, substance use, particularly of drugs that alter perception and impulse control, may directly contribute to violent or antisocial acts (Ibimiluyi, 2023). Inmates with a history of substance abuse may engage in antisocial conduct as a means of sustaining addiction, influenced by impaired judgment and reduced moral restraint. Moreover, the finding aligns with the general strain theory, which argues that individuals experiencing psychological or environmental stressors (such as addiction) may resort to deviant behaviour as a coping mechanism. In this study, the inmates' antisocial actions may have been both a consequence and a reinforcement of their substance use history, thereby forming a cyclical relationship between addiction and antisocial conduct. The evidence emphasizes the need for substance use rehabilitation programs in correctional settings as a vital strategy to reduce recidivism and enhance behavioural reform. The result conforms to the study of Olagunju *et al.* (2022) that psychotic and dependence syndromes involving cannabis misuse were the most prevalent poly-SUD, and mono-SUD was characterized by alcohol, nicotine, and opioid dependence syndromes. Substance use disorder was more likely in participants charged with robbery and convicted, while ASPD was associated with prior and long-term imprisonment. The finding aligns with the work of Alizadeh *et al.* (2011), who reported that authoritative parenting - characterized by high responsiveness and demandingness - was associated with fewer internalizing and externalizing behavioural problems among children. Similarly, Baumrind (1971) emphasized the protective effect of authoritative parenting in reducing risky behaviours such as substance misuse during adolescence. These results reinforce the idea that structured and supportive parenting practices create a foundation for adaptive social behaviour, which persists into adulthood. This finding corroborates the reports of Ugwuoke and Mfon (2018), who identified psychoactive substances such as caffeine, alcohol, marijuana, and opioids as commonly used among prison populations, often facilitated by non-compliant prison staff and visitors. Similarly, Yitayih *et al.* (2018)

documented a high prevalence of substance use disorder among Ethiopian prisoners, linking it to prior psychosocial vulnerabilities, poor social support, and the likelihood of recidivism due to inadequate treatment services. The present study's result also aligns with Olagunju *et al.* (2022), who found substance use disorder prevalent among Nigerian inmates, often co-occurring with anti-social personality disorder (ASPD). Taken together, these findings emphasize that substance use is not merely a coping mechanism within prisons but a behavioural risk factor strongly associated with antisocial conduct. This outcome mirrors the perspective of Malouf *et al.* (2012), who observed that substance use dynamics among inmates were mediated by peer associations and moderated by self-control, underscoring the interplay between individual predispositions and environmental factors. Furthermore, the combined influence identified in this study supports an integrative understanding of antisocial behaviour, where distal factors (parenting practices) interact with proximal risk factors (substance use) to shape behavioural outcomes. Ultimately, this outcome underlines the importance of holistic intervention strategies that address both family dynamics and individual behaviours. Correctional rehabilitation programs must therefore integrate psychological counselling, substance abuse treatment, and family therapy to effectively mitigate antisocial tendencies among inmates. Conversely, the current study's outcome resonates with the findings of Iveren *et al.* (2024), who reported that permissive parenting significantly predicted ASPD among incarcerated individuals in Benue State. While the present study did not isolate specific parenting styles, the observed negative association suggests that maladaptive parenting - such as permissive or uninvolved styles - may heighten vulnerability to antisocial tendencies. However, this result contrasts with Daramola and Oladimeji (2022), who reported no significant relationship between parenting style and psychopathology among inmates in Kirikiri prisons. The disparity may stem from differences in the operationalization of variables, with the current study focusing specifically on antisocial behaviour rather than broad psychopathological symptoms.

The third hypothesis tested the joint influence of parenting style and substance use on antisocial behaviour. The multiple regression analysis indicated a significant combined effect, with the two predictors accounting for 56.1% of the variance in antisocial behaviour ( $R^2 = 0.561$ ,  $F(2,197) = 125.98$ ,  $p < 0.001$ ). Both parenting style ( $\beta = -0.250$ ,  $p < 0.001$ ) and substance use ( $\beta = -0.606$ ,  $p < 0.001$ ) made significant and independent contributions to the model. This result affirms the multidimensional nature of antisocial behaviour, which is influenced by both familial and individual factors. The joint impact indicates that negative early-life experiences, such as dysfunctional parenting, combined with later-life maladaptive behaviours like substance use, interact to exacerbate the development of antisocial traits. The finding reflects the cumulative risk hypothesis, which suggests that the accumulation of multiple adverse factors increases the likelihood of behavioural problems. Ultimately, this outcome underlines the importance of holistic intervention strategies that address both family dynamics and individual behaviours. Correctional rehabilitation programs must therefore integrate psychological counselling, substance abuse treatment, and family therapy to effectively mitigate antisocial tendencies among inmates.

### **5.1. Implications of the Study**

This study makes a significant contribution to the existing literature by providing context-specific empirical evidence on the predictors of antisocial behaviour among inmates in Nigeria, an area that remains under-researched. By examining the combined influence of parenting style and substance use, the study underscores how both early-life family dynamics and personal behavioural choices significantly shape deviant behaviour. Notably, the research demonstrates that these factors together account for over 56% of the variance in antisocial behaviour, offering a robust explanatory model.

The study also highlights the importance of early intervention in family systems and substance abuse prevention as key components of criminal rehabilitation efforts. By focusing on inmates within correctional facilities in Ogun State, the study adds local relevance to global discussions on criminogenic risk factors, emphasizing the need for integrated, psychosocial approaches in correctional

management and reintegration strategies. This work thus serves as a foundational step for future research and policy aimed at reducing recidivism and promoting behavioural reform among incarcerated individuals.

## 6. Conclusion

This study investigated the influence of parenting style and substance use on antisocial behaviour among inmates of selected correctional centres in Ogun State. The findings revealed that both parenting style and substance use significantly predicted antisocial tendencies among the inmate population. Specifically, poor parenting styles were associated with increased antisocial behaviours, while substance use was identified as a strong contributing factor to deviant behaviour and antisocial behaviour.

Furthermore, the joint influence of parenting style and substance use provided a more comprehensive explanation of the antisocial behaviours observed, accounting for over half (56.1%) of the variance. These findings emphasize the complex interplay between early-life family environments and personal behavioural choices in shaping individual conduct, particularly among those involved in the criminal attitude and behaviours which are referred to as antisocial behaviour. Conclusively, it can be said that parenting style and substance use relatively and jointly contribute to antisocial behaviour among inmates of selected correctional centres in Ogun State. The results highlight the urgent need for targeted interventions within correctional centres that incorporate parenting education programs that promote authoritative parenting practices, such as warmth, consistency, and discipline. Government agencies, schools, non-governmental organizations and community health centres should organize workshops and seminars to educate parents on the impact of their parenting style on their children's behaviour. Also, young adults should be sensitized on the negative effect of substance abuse to their mental health which will directly shape their social behavior.

### 6.1. Limitations and Further Suggestions

The study relied on self-reported data, which may be subject to social desirability bias or inaccurate recall, particularly given the sensitive nature of the topic and also the sample was restricted to a specific geographic area and institutional setting, which may limit the generalizability of the results to other correctional centres or regions. The authors suggest that further studies could investigate how socioeconomic status interacts with parenting styles and substance use to influence antisocial behaviour among inmates. Understanding this relationship may provide a more holistic view of the root causes of delinquency and inform more targeted intervention strategies and finally research assessing the impact of specific rehabilitation and intervention programs targeting parenting-related issues and substance abuse within correctional centers could help refine and optimize strategies to reduce antisocial behaviour and recidivism.

## 7. References

- Adebajo, A.A. & Aborisade, R.A. (2024). Family structure, parenting styles, and juvenile delinquency: Narratives of inmates of juvenile correctional home, Asero, Abeokuta, Ogun State. *FUOYE International Journal of Criminology and Security Studies*, 3(1), 1–20.
- Akporaro, A.C., Sikiru, P.S. & Ubong, E G. (2023). Inmates' rehabilitation programmes and recidivism in the selected correctional facilities in South-Western Nigeria: A literature review. *International Journal of Criminology and Security Studies*, 1(1), 78–96.
- Akubue, A. U. (2021). *Classroom organization and management: A 5-point strategy*. Ibadan, Nigeria: Wisdom Publishers.
- Alizadeh, S., Talib, M.B.A., Abdullah, R. & Mansor, M. (2011). Relationship between parenting style and children's behaviour problems. *Asian Social Science*, 7(12), 195–200.

- Allen, J.P., Loeb, E.L., Narr, R.K., & Costello, M.A. (2021). Different factors predict adolescent substance use versus adult substance abuse: Lessons from a social-developmental approach. *Development and Psychopathology*, 33(3), 792–802.
- Amaefule, F.N. (2020). Antisocial behaviour in students: Its effect on the future of education in Nigeria. *Unizik Journal of Educational Research and Policy Studies*, 12, 82–88.
- American Psychological Association. (2020). *Antisocial behavior: A comprehensive review*. APA Press.
- Arbach-Lucioni, K., Martinez-García, M., & Andrés-Pueyo, A. (2012). Risk factors for violent behavior in prison inmates: A cross-cultural contribution. *Criminal Justice and Behavior*, 39(9), 1219-1239.
- Awopetu, R.G. & Ajonye, A.A. (2011). Substance use and abuse among prison inmates in Benue state, Nigeria. *Nigerian Journal of Psychological Research*, 7(1).
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology*, 4(1), 1–103.
- Baumrind, D. (2005). The influence of parenting style on adolescent competence and substance use. *The Journal of Early Adolescence*, 1(11), 56-95.
- Beck, M. & Richards, L. (2020). Parenting styles and their impact on child development. *Journal of Family Dynamics*, 35(4), 102–120.
- Cabrera, F., Herrera, A., Rubalcava, S. & Martinez, K. (2017). Behaviour patterns of antisocial teenagers interacting with parents and peers: A longitudinal study. *Frontiers in Psychology*, 8, 757.
- Chang, H., Park, M. & Lee, J. (2020). The impact of environmental factors on antisocial behavior: Early intervention strategies. *Journal of Child Psychology*, 48(1), 112–130.
- Chen, Q., Liu, J. & Zheng, W. (2022). Parenting style and emotional regulation: A longitudinal analysis. *Journal of Child Development*, 93(1), 45–60.
- Cohen, A. & Kessler, H. (2018). Parenting styles and children's emotional regulation: Implications for mental health. *Journal of Child Psychology*, 39(2), 98–112.
- Dahlman, D., Ohlsson, H., Edwards, A.C. & Sundquist, K. (2021). Socioeconomic correlates of incident and fatal opioid overdose among Swedish people with opioid use disorder. *Substance Abuse Treatment, Prevention, and Policy*, 16, Article 73. DOI: <https://doi.org/10.1186/s13011-021-00409-3>.
- Daramola, D. & Oladimeji, B.Y. (2022). Personality, parenting styles and psychopathology among inmates in selected Nigerian prisons. *Education*, 2(9), 430-434.
- de Jong, E., Bernasco, W. & Lammers, M. (2020). Situational correlates of adolescent substance use: An improved test of the routine activity theory of deviant behavior. *Journal of Quantitative Criminology*, 36, 823–850. DOI: <https://doi.org/10.1007/s10940-019-09433-w>.
- Domzalska, A., Skowroński, B. & Wolańczyk, T. (2022). Behavioral and emotional problems of prisoners' children based on the children's self-report. *International Journal of Environmental Research and Public Health*, 19(1), 561.
- Edens, J.F., Kelley, S.E., Lilienfeld, S.O., Skeem, J.L., Douglas, K.S. & Hilton, N.Z. (2015). DSM-5 antisocial personality disorder: Predictive validity in a prison sample. *Law and Human Behavior*, 39(2), 123–129.
- Eze, C.O. (2021). Parenting style as a determinant of anti-social behaviour of students in universities in South East, Nigeria. *International Journal of Psychosocial Rehabilitation*, 25(2), 1475-92.

- Faraz, A. & Shahanawaz, J. (2015). Parenting style. *The International Journal of Indian Psychology*, 1(3), 2349–3429.
- Farrington, D.P. (2005). Childhood origins of antisocial behaviour. *Clinical Psychology and Psychotherapy*, 12, 177–190.
- Fisher, K.A., Torrico, T.J. & Hany, M. (2024). Antisocial personality disorder. In *StatPearls* [Internet]. Treasure Island, FL: StatPearls Publishing, available at: <https://www.ncbi.nlm.nih.gov/books/NBK546673/>.
- Fonagy, P., Yakeley, J., Gardner, T., Simes, E., McMurrin, M. & Moran, P. (2020). Mentalization for offending adult males (MOAM): Study protocol for a randomized controlled trial to evaluate mentalization-based treatment for antisocial personality disorder in male offenders on community probation. *Trials*, 21, Article 254. DOI: <https://doi.org/10.1186/s13063-020-04316-9>.
- Fortin, L. (2023). Students' antisocial and aggressive behaviour: Development and prediction. *Journal of Educational Administration*, 41, 669–688.
- Gaik, L.P., Abdullah, M.C., Elias, H. & Uli, J. (2020). Development of antisocial behaviour. *Procedia Social and Behavioural Sciences*, 7(C), 383–388.
- Gobin, R.L., Reddy, M.K., Zlotnick, C. & Jejioph, J. (2015). Lifetime trauma victimization and PTSD in relation to psychopathy and antisocial personality disorder in a sample of incarcerated women and men. *International Journal of Prisoner Health*, 11(2), 64–74.
- Green, P. & Thompson, M. (2019). Peer pressure, family dynamics, and the onset of substance use in adolescents. *Journal of Adolescent Health*, 63(1), 15–24.
- Harrison, G., Wang, L. & Liu, Y. (2021). Parenting style and child psychosocial development: A longitudinal study. *International Journal of Parenting*, 43(3), 218–235.
- Hashmani, T. & Jonason, P.K. (2019). Antisocial behaviour. In V.A. Weekes-Shackelford & T. Shackelford (Eds.), *Encyclopedia of evolutionary psychological science*. Springer International Publishing.
- Ibimiluyi, F. O. (2023). Alcoholic consumption and antisocial behaviours among secondary school students in Ado Ekiti, Ekiti State. *International Journal of Quantitative and Qualitative Research Methods*, 11(1), 24–34.
- Ikediashi, N.N. & Akande, J.A. (2015). Antisocial behaviours among Nigerian adolescents. *Journal of Research & Method in Education*, 5(4), 31–36, available at: <http://www.iosrjournals.org>
- Iveren, A.C., Onyi, K.B. & Apeon, T.A.S. (2024). Emotional disposition as correlate of antisocial personality disorders among incarcerated youths in Benue and Nasarawa States Nigeria. *IFE Psychologia: An International Journal*, 32(1), 40-49.
- Janius, N., Jemat, S. & Amdan, M. (2024). Parenting style on academic performance among secondary students at Kota Belud, Sabah. *International Journal of Science and Research Archive*, 12(02), 907–929.
- Jenkins, R., Harper, L. & McDonald, K. (2019). The effect of parenting style on psychosocial development in adolescents. *Adolescent Psychology Review*, 22(1), 14–25.
- Jones, M., Williams, L. & Lewis, K. (2017). Psychoactive substances and their impact on mental health: A review. *Journal of Psychology and Mental Health*, 22(3), 120–137.

- Kiran, U., Farooqi, M.T.K. & Ahmed, S. (2019). Parenting style and anti-social behavior: An exploratory study of secondary school students. *European Online Journal of Natural and Social Sciences*, 8(2), 294–308.
- Kuppens, S. & Ceulemans, E. (2019). Parenting styles: A closer look at a well-known concept. *Journal of Child and Family Studies*, 28(1), 168–181.
- Li, X., Wang, Y. & Li, Y. (2021). Parenting style and social competence: The mediating role of self-esteem. *Social Behavior and Personality*, 49(2), e9552.
- Malouf, E., Stuewig, J. & Tangney, J. (2012). Self-control and jail inmates' substance misuse post-release: mediation by friends' substance use and moderation by age. *Addictive behaviors*, 37(11), 1198–1204. DOI: <https://doi.org/10.1016/j.addbeh.2012.05.013>.
- Mandal, A. (2021). What is drug abuse? Available at: <https://www.news-medical.net/health/What-is-Drug-Abuse.aspx>.
- Martinez, D. & Gonzalez, P. (2018). Parenting styles: A cultural perspective. *Journal of Cross-Cultural Psychology*, 49(5), 654–670.
- Moffitt, T.E. (2018). Male antisocial behaviour in adolescence and beyond. *Nature Human Behaviour*, 2(3), 177–186. DOI: <https://doi.org/10.1038/s41562-018-0309-4>.
- Nguyen, S. & Kim, J. (2021). Understanding the biopsychosocial factors influencing substance use. *Journal of Behavioral Medicine*, 48(2), 221–234. DOI: <https://doi.org/10.1007/s10865-020-00192-x>.
- Njie, L.M. & Joseph, L.L. (2020). Anti-social behaviour, prison conditions, and the development of stable personality by minor prisoners, *International Journal of Trends in Scientific Research and Development*, 4(5), 886-941, available at: <https://www.ijtsrd.com/papers/ijtsrd31748.pdf>.
- Ogders, C.L., Moffitt, T. E., Broadbent, J. M., Dickson, N., Hancox, R. J., & Harrington, H. (2018). Female and male antisocial trajectories: From childhood origins to adult outcomes. *Development and Psychopathology*, 20(2), 673–716. <https://doi.org/10.1017/S0954579418000367>
- Ojo, I.O. (2015). Causes and prevalence of antisocial behaviour among students with hearing impairment in Ibadan, Nigeria. *Journal of Education and Practice*, 6(28), 38–43.
- Okoro, J.N., Ezeonwuka, C.N., Onuoha, M.E., Owoh, J.C., Nweze, B.N., Odionye, T.C. & Nkire, J.C. (2020). Pattern and correlates of psychoactive substance use among new prison inmates in Nigeria. *African Journal of Drug & Alcohol Studies*, 19(1), 53–71.
- Olagunju, A.T., Bioku, A.A., Poluyi, C., Abdullahi, I., Olagunju, T O., Alatishe, Y.A., Kolawole, O.F., Mela, M., Bradford, J.M.W. & Chaimowitz, G.A. (2022). Substance use disorders and antisocial personality disorder among a sample of incarcerated individuals with inadequate health care: implications for correctional mental-behavioural health and addiction services. *Journal of health care for the poor and underserved*, 33(3), 1401–1418. DOI: <https://doi.org/10.1353/hpu.2022.0120>.
- Oluwasanmi, L. A. (2022). Effects and consequences of drug abuse. Paper presented during 2021/2022 Orientation programme for fresh students of Ekiti State University, Ado. *University Auditorium*, September 29<sup>th</sup>, 2022, available at: <https://eksu.edu.ng/wp-content/uploads/2022/10/Students-Orientation.pdf>.
- Oluwole, A.J., Habib, A.K. & Babatunde, G.M. (2017). Crime and adolescent drug use in Lagos, Nigeria. *Sociology International Journal*, 2(2), 64–73.

- Onyegbula, J. (2017). Nigeria must make hard choices to end drug abuse – expert. *News Agency of Nigeria*, available at: <https://nannewsagency.com/nigeria-must-make-hard-choices-to-end-drug-abuse-expert/>.
- Otto, C., Kaman, A., Erhart, M., Barkmann, C., Klasen, F., Schlack, R. & Ravens-Sieberer, U. (2021). Risk and resource factors of antisocial behaviour in children and adolescents: Results of the longitudinal BELLA study. *Child and Adolescent Psychiatry and Mental Health*, 15(1), 61. DOI: <https://doi.org/10.1186/s13034-021-00393-8>.
- Pears, K.C., Kim, H.K. & Fisher, P.A. (2016). Decreasing risk factors for later alcohol use and antisocial behavior in children in foster care by increasing early promotive factors. *Children and Youth Services Review*, 65, 156–165. DOI: <https://doi.org/10.1016/j.chidyouth.2016.03.031>.
- Pinquart, M. (2017). Associations of parenting dimensions and styles with externalizing problems of children and adolescents: An updated meta-analysis. *Developmental Psychology*, 53(5), 873–932. DOI: <https://doi.org/10.1037/dev0000295>.
- Rodriguez, M., Smith, P. & Johnson, L. (2022). Early substance use and its long-term consequences on physical and mental health. *Public Health Journal*, 46(2), 110–126.
- Rose, J., Roman, N., Mwaba, K. & Ismail, K. (2018). The relationship between parenting and internalizing behaviours of children: A systematic review. *Early Child Development and Care*, 188(10), 1468–1486.
- Sadock, B.J. (2015). *Kaplan & Sadock's synopsis of psychiatry: Behavioral sciences/clinical psychiatry*. Wolters Kluwer.
- Sahu, K.K. & Sahu, S. (2016). Substance abuse causes and consequences. *Bangabasi Academic Journal*, 9, 52–59.
- Sanvictores, T. & Mendez, M.D. (2022). Types of parenting styles and effects on children. In *StatPearls*. StatPearls Publishing.
- Sazelo, M.M., Andile, N., Shangase, A. & Samuel, F.C. (2023). African parenting style and its relationship with youths' tendency to participate in crime: A case study of Kwazulu-Natal/Indanda Township. *Journal of Criminology and Criminal Justice Studies*, 1(2), 123–144.
- Sijtsema, J.J. & Lindenberg, S.M. (2018). Peer influence in the development of adolescent antisocial behavior: Advances from dynamic social network studies. *Developmental Review*, 50, 140–154.
- Sorkhabi, N. & Koc, M. (2021). Parenting styles and adolescent substance use: The role of family dynamics in antisocial behavior. *Journal of Adolescence*, 90(2), 85–97.
- Tumusabe, E., Kazaara, D.A. & Moses, N. (2022). Parenting styles and children behaviour among adolescents in Kisoro Municipality, Kisoro District, Uganda. *International Journal of Academic Multidisciplinary Research*, 6(10), 254-75.
- Ugwuoke, K.A. & Mfon, F. B. (2018). A critical analysis of substance abuse by prison inmates in Nigeria. *Novel Approaches in Drug Design and Development*, 3(5), 555622.
- Ugwuoke, K. A., & Otodo, I. (2016). A study of drug use pattern among inmates of Jos Prison, Nigeria. *African Journal for Drugs and Alcohol Abuse*, 15(1), 11–20.
- Ukeh, M.I. (2021). The twin social vices: Drug abuse and antisocial behaviours among cadets of Nigeria police academy. *International Journal of Education and Social Science Research*, 4(5), 2581–5148.

Wang, M., Qian, L. & Chen, H. (2020). Parenting styles and antisocial behavior: A systematic review. *Psychological Studies*, 65(3), 243–257.

Yitayih, Y., Abera, M., Tesfaye, E., Mamaru, A., Soboka, M. & Adorjan, K. (2018). Substance use disorder and associated factors among prisoners in a correctional institution in Jimma, Southwest Ethiopia: a cross-sectional study. *BMC psychiatry*, 18(1), 314.