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Table 1 and 2 are available in the Supplementary Files section.

Sociodemographic variables, family dynamics, Self esteem and Emotional Intelligence among respondents with and without Psychoactive Substance Use Disorders in a Nigerian State; A comparative Study

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Abstract

Background:

Psychoactive substance use disorder is a major public health concern in Nigeria, especially among youths, influenced by sociodemographic and psychosocial factors, but comparative clinical evidence remains scarce.

Objective:

To examine and compare sociodemographic characteristics, family dynamics, self-esteem, and emotional intelligence among respondents with and without psychoactive substance use disorders in a Nigerian state.

Methods:

This hospital-based comparative study was conducted in Ondo State, Southwest Nigeria. A total of 400 participants were recruited using multistage and systematic random sampling—200 patients diagnosed with PSUD from neuropsychiatric and rehabilitation facilities, and 200 age- and gender-matched non-users attending the General Outpatient Department. Data were collected using validated instruments: the Wong and Law Emotional Intelligence Scale (WLEIS), Rosenberg Self-Esteem Scale (RSES), and Family Adaptability and Cohesion Evaluation Scale (FACES III). Yoruba versions of the tools underwent rigorous translation and pilot testing. Data were analyzed using SPSS version 23, with descriptive statistics, chi-square tests, and logistic regression analyses. Statistical significance was set at $p < 0.05$.

Results:

Respondents with PSUD were predominantly young males (mean age: 26.46 ± 6.90 years).

Significant associations were found between PSUD and marital status, educational level, income, family history of substance use, perceived social support, and stigma ($p < 0.001$). Psychosocial factors showed strong relationships with PSUD: respondents from unbalanced family settings had a significantly higher prevalence of PSUD ($\chi^2 = 24.063$, $p = 0.001$); low self-esteem was strongly associated with PSUD ($\chi^2 = 58.604$, $p = 0.001$); and lower emotional intelligence markedly increased PSUD risk, while no respondent with high EI had PSUD ($\chi^2 = 152.585$, $p = 0.001$).

Conclusion:

Psychoactive substance use disorder is driven by social, familial, and emotional factors, and addressing these through targeted interventions may improve prevention and treatment outcomes in Nigeria.

Keywords:

Psychoactive substance use disorder; Emotional intelligence; Self-esteem; Family dynamics; Nigeria

Introduction

Psychoactive substance use (PSU) remains a major public health challenge in Nigeria, particularly among adolescents and young adults, with alcohol, tramadol, marijuana, and opioids being the most commonly abused substances (Dasia et al., 2022; Aguocho & Nwefoh, 2021). Prevalence rates among students and youths range from 20–40%, with significant regional variations and rising misuse of pharmaceutical opioids such as codeine and tramadol (Jada et al., 2021; Onaolapo et al., 2022; Neicun, 2023). National data indicate that over 14.4% of Nigerians aged 15–64 used psychoactive substances in the past year (UNODC, 2018).

Substance use disorders (SUDs) are closely associated with impairments in emotional intelligence (EI) and reduced self-esteem, both of which are critical for adaptive coping, decision-making, and relapse prevention (Henning et al., 2020; Teague et al., 2020). Emotional intelligence, conceptualized by Salovey and Mayer, involves the ability to perceive, regulate, and utilize emotions effectively, and deficits in EI have been linked to prolonged substance use and emotional dysregulation (Drivas & Sideraki, 2021). Similarly, substance misuse is associated with low self-esteem, characterized by feelings of shame, guilt, and worthlessness, which can perpetuate addiction and hinder recovery (Akpunne et al., 2020; Snoek et al., 2021).

Family dynamics also play a significant role in substance use outcomes. Healthy family communication and cohesion promote psychological well-being, whereas dysfunctional family systems can exacerbate substance-related problems (Ishii & Eisen, 2020; Gaspar et al., 2021). Theoretical frameworks such as the biopsychosocial model, self-medication hypothesis, family systems theory, and attachment theory provide comprehensive explanations for the development and maintenance of SUDs, emphasizing the interaction of biological vulnerability, emotional distress, social learning, and family influences (Rinaldi et al., 2020; Trucco, 2020; Wittenborn et al., 2020; Di Sarno et al., 2021).

Evidence suggests that strengthening emotional intelligence and self-esteem enhances treatment engagement, resilience, and relapse prevention among individuals with SUDs (Rathinam & Ezhumalai, 2021; Obeid et al., 2021). Comparing these constructs among psychoactive substance users and non-users is therefore essential for understanding their roles in addiction etiology and informing more holistic and effective treatment strategies in Nigeria (Guo et al., 2024).

General Objective

To examine the relationship between sociodemographic variables, family dynamics, self-esteem, and emotional intelligence among respondents with and without psychoactive substance use disorders in a Nigerian state.

Specific Objectives

1. To compare the sociodemographic characteristics of respondents with and without psychoactive substance use disorders.
2. To compare self-esteem between respondents with psychoactive substance use disorders and respondents without psychoactive substance use disorders.

3. To compare family dynamics between respondents with psychoactive substance use disorders and respondents without psychoactive substance use disorders.
4. To compare emotional intelligence between respondents with psychoactive substance use disorders and respondents without psychoactive substance use disorders.

METHODOLOGY

Study area

The study was carried out in **Ondo State**, one of the six states in **Southwest Nigeria**, with Akure serving as its capital city.

Study settings

This research employed a hospital facility-based study design,

Study design

This was a hospital-based comparative cross-sectional study.

Study Population

The study involved two groups of participants recruited from healthcare facilities in Ondo State. The first group consisted of patients admitted for the treatment of psychoactive substance use disorders, who had documented histories of substance use disorders and were undergoing therapeutic or rehabilitative care. The second group comprised patients attending the General Outpatient Department of the University of Medical Sciences Teaching Hospital Ondo who had no history of psychoactive substance use and were seeking care for general medical conditions matched with age range and gender. . This group served as a comparison population, providing baseline emotional and psychological profiles. The inclusion of both groups allowed for comparative analysis of emotional intelligence and self-esteem between substance users and non-users.

Sample size

The sample size for this study was computed by using the Cohen's formula for two-sample mean difference. Formula below

Effect size of 0.3 (Cohen, 2013)

$$n = \frac{2(Z_{1-\beta} + Z_{1-\alpha/2})^2}{d^2}$$

With $Z_{1-\alpha/2} = 1.96$

$Z_{1-\beta} = 0.84$

$d = 0.3$

$$Z_{SUM} = 2(Z_{1-\beta} + Z_{1-\alpha/2}) = 15.68$$

So $n = 15.68/0.09$

$= 174.22$

$= 175$

After 10% attrition $= 175/0.9$

193.58

$= 194$

A total of 400 participants (200 per group) were recruited for the study on psychoactive substance use disorders (PSUD), exceeding the minimum calculated sample size of 388 to reduce Type II error. Systematic random sampling was used, starting with a random selection from the first three admissions, then including every second eligible patient, with replacements made if criteria were not met. Participants were assessed privately to ensure confidentiality and randomly. Recruitment occurred over six months, averaging six new admissions per day, with a sampling interval calculated to maintain representative inclusion.

At the GOPD systematic random sample was used. Patients who were negative to drug urine toxicology with age range of 5 years and same gender as patients abusing psychoactive substance were sampled

Data were collected via structured questionnaires administered by three trained research assistants, who ensured standardized procedures, participant support, and confidentiality, enhancing data reliability and ethical compliance.

Inclusion and Exclusion Criteria

The study included adults aged 18 and above, clinically diagnosed with psychoactive substance use disorders (PSUD) and admitted to psychiatric or rehabilitation units in Ondo State, who voluntarily consented and could communicate in English or Yoruba. Excluded were individuals with severe cognitive impairment, active psychosis, unstable medical or psychiatric conditions, acute withdrawal,

Sampling Method

The study employed a multistage random sampling technique. The Neuropsychiatric Hospital, Akure, was purposively selected to recruit patients with psychoactive substance use disorders while the University of Medical Sciences was randomly selected through balloting. The final respondent were selected systematic random sampling while the corresponding age and gender of the patient receiving treatment for PSUD was used to select patient from the GOPD , University of Medical Science teaching hospital Osogbo

Instruments

Data were collected using a researcher-designed sociodemographic data collection form and standardized instruments, namely the Wong and Law Emotional Intelligence Scale (WLEIS), Rosenberg Self-Esteem Scale (RSES), and Family Adaptability and Cohesion Evaluation Scale (FACES III). The researcher-designed form was used solely to obtain participants' demographic, socioeconomic, and substance use-related characteristics and was not a validated questionnaire. The Wong and Law Emotional Intelligence Scale (WLEIS), developed by Wong and Law (2002), is a widely used theory-driven instrument for assessing emotional intelligence across diverse populations and settings. Based on the Mayer and Salovey model, it measures four domains self-emotion appraisal, others' emotion appraisal, use of emotion, and regulation of emotion using a concise 16-item, 7-point Likert format. The scale demonstrates strong psychometric properties, including a stable four-factor structure, high internal consistency, and good convergent validity, making it suitable for clinical, educational, and organizational research. Internationally and in Nigeria, the WLEIS has shown robust reliability and cultural applicability, including among individuals with mental health and substance use disorders. In the present study, the WLEIS reliably assessed changes in emotional intelligence following Cognitive Behavioral Therapy, with excellent internal consistency (Cronbach's $\alpha = 0.92$) and clear scoring criteria to support pre- and post-intervention comparisons.

The Rosenberg Self-Esteem Scale (RSES), developed by Rosenberg (1965), is a widely used 10-item self-report instrument measuring global self-esteem, reflecting both positive and negative perceptions of self-worth. Items are rated on a four-point Likert scale, with total scores ranging from 0 to 30; higher scores indicate higher self-esteem. Scores are generally interpreted as low (0–15), normal (16–25), and high (26–30). The RSES has demonstrated strong psychometric properties globally, including high internal consistency ($\alpha = 0.77$ – 0.88) and test-retest reliability (>0.80), and has been validated across diverse populations and cultures. In Nigeria, the scale has been reliably used among adolescents, adults, clinical populations, and individuals with

substance use disorders, showing high cultural relevance and internal consistency ($\alpha > 0.80$). In the present study, the RSES assessed self-esteem among participants with and without psychoactive substance use disorders, with scores categorized into low, average, and high to facilitate group comparisons.

The Family Adaptability and Cohesion Evaluation Scale (FACES III), developed by Olson, Portner, and Lavee (1985), is one of the most widely used of the Circumplex Model of Marital and Family Systems (Megersa et al., 2021). It is one of the most widely applied and validated tools for assessing family functioning across cultural and clinical contexts. The model focuses on understanding how families maintain emotional bonds and adapt to change by measuring two central dimensions: family cohesion and family adaptability (Roman et al., 2025) (Kuang et al., 2023). FACES III is a 20-item self-report questionnaire that uses a five-point Likert scale ranging from 1 (Almost Never) to 5 (Almost Always) (Pedone et al., 2023). The intersection of these classifications provides a comprehensive view of the family's health—ranging from extreme (imbalanced) to balanced (healthy and adaptive). Families within the balanced range generally exhibit stronger communication, greater stability, and higher satisfaction than those in the extreme categories.

Psychometric studies have shown that FACES III demonstrates reliable and valid results across different populations (Vilca et al., 2024). It has an internal consistency coefficient ($r = .68$) and a test-retest reliability coefficient ($r = .80$), indicating stable and consistent performance over time (Willems et al., 2023). The low correlation between the two sub-scales ($r = .03$) also confirms that cohesion and adaptability are distinct but related dimensions of family functioning. In Nigeria, FACES III has been increasingly applied in both clinical and community-based research to understand how family structures influence behavior, coping, and recovery. Studies have used it to examine the impact of family functioning on adolescent well-being, marital stability, and recovery outcomes among individuals with mental health or substance use disorders. Nigerian researchers have reported good internal consistency, with Cronbach's alpha values ranging from 0.70 to 0.85, suggesting that the instrument maintains strong reliability among Nigerian populations (Izah et al., 2023).

Translation

To ensure linguistic accuracy and cultural relevance in Yoruba-speaking participants, the study employed a rigorous translation and back-translation process for the FACE, WLEIS, and RSES. The process involved five stages: forward translation by two bilingual experts, harmonization and reconciliation into a single culturally appropriate version, back translation to verify conceptual fidelity, expert panel review to ensure semantic, idiomatic, experiential, and conceptual equivalence, and pilot testing to assess clarity, comprehension, and reliability. The pilot confirmed strong internal consistency (Cronbach's $\alpha > 0.80$) and cultural appropriateness.

Ethical Approval

The study received ethical approval from the University of Medical Sciences Teaching Hospital, Ondo, and ensuring adherence to standards for human research. Participation was voluntary, with informed consent obtained after explaining the study's objectives, procedures, and benefits. Participants were free to decline or withdraw without penalty.

Data Analysis

Field data were carefully screened, cleaned, and coded before analysis using SPSS version 23. Analysis comprised descriptive and inferential phases. Descriptive statistics summarized participants' socio-demographic characteristics (e.g., age, gender, education, marital status, substance use duration) using frequencies, percentages, means, and standard deviations, with tables and charts for clarity. Inferential statistics tested hypotheses and examined relationships: Chi-square tests assessed associations between categorical variables, while binary logistic regression identified independent predictors of emotional intelligence and self-esteem, providing adjusted odds ratios (AOR) and 95% confidence intervals (CI). Statistical significance was set at $p < 0.05$.

Pilot

A pilot study was conducted with 40 participants (20 with PSUD and 20 without) from UNIOSUN Teaching Hospital Osogbo, Osun State, to assess the reliability of the Yoruba versions of the Emotional Intelligence Questionnaire and Rosenberg Self-Esteem Scale (RSES). The questionnaires were administered twice, two weeks apart, to the same participants, and test-retest reliability was calculated. The results demonstrated strong stability over time: RSES = 0.79, and Emotional Intelligence Questionnaire = 0.93 confirming the instruments' reliability and appropriateness for the study population.

Result

Sociodemographic characteristics of respondents with and without psychoactive substance use disorder

The participants with psychoactive substance use disorders in this study came from a variety of backgrounds. Starting with age, the mean age of respondents with PSUD was 26.46 ± 6.90 years, and the majority were younger than 35 years, while only 12.5% were above that age. In terms of gender the respondents were male, with 88.5% being male and just 11.5% female (Table 1).

There was a statistically significant association between several sociodemographic variables and the presence of psychoactive substance use disorder among respondents attending the General Outpatient Department. Marital status was significantly related to substance use disorder, with a higher proportion observed among single respondents compared with married respondents ($\chi^2 = 12.398$, $p = 0.001$). Educational level also showed a strong association, as respondents with tertiary education had a higher prevalence of substance use disorder compared with those with primary or secondary education ($\chi^2 = 41.069$, $p = 0.001$). Average monthly income was significantly associated with psychoactive substance use disorder, with respondents earning above the minimum wage showing a markedly higher prevalence than those earning below the minimum wage ($\chi^2 = 148.103$, $p = 0.001$). In addition, a family history of drug use was strongly associated with substance use disorder, as the majority of respondents with such a history had the disorder ($\chi^2 = 222.994$, $p = 0.001$). Social factors were also important, as lack of social support ($\chi^2 = 19.027$, $p < 0.001$) and perceived stigma ($\chi^2 = 20.976$, $p < 0.001$) were both significantly associated with a higher prevalence of psychoactive substance use disorder (Table 2). Overall, these findings highlight the significant influence of marital, educational, economic, familial, and psychosocial factors on psychoactive substance use disorder among the respondents.

Association between Family dynamics , Self esteem , Emotional Intelligence and presence of Psychoactive Substance Use among the respondents

There was a statistically significant association between family dynamics, self-esteem, emotional intelligence, and the presence of psychoactive substance use among respondents attending the General Outpatient Department. Respondents from unbalanced family settings had a significantly higher prevalence of psychoactive substance use disorder compared with those from balanced families ($\chi^2 = 24.063$, $p = 0.001$) (Figure 3). Self-esteem was also strongly associated with substance use, as respondents with low self-esteem were more likely to have psychoactive substance use disorder than those with normal self-esteem ($\chi^2 = 58.604$, $p = 0.001$) (Figure 1). Similarly, emotional intelligence showed a significant relationship with substance use disorder, with the highest prevalence observed among respondents with below-average and average emotional intelligence, while none of the respondents with high emotional intelligence had

psychoactive substance use disorder ($\chi^2 = 152.585$, $p = 0.001$) (Figure 2). Overall, these findings suggest that adverse family dynamics, low self-esteem, and poor emotional regulation are important psychosocial factors associated with psychoactive substance use among the respondents.

Discussion

Sociodemographic differences between Respondent with and without Psychoactive Substance Use disorder

The study demonstrates a statistically significant association between marital status and psychoactive substance use disorder (PSUD), with a higher prevalence among single individuals compared to married counterparts, highlighting marital status as an important protective factor (Amundsen et al., 2022; Anene-Okeke et al., 2025). Evidence from international studies consistently shows that marriage provides emotional stability, social monitoring, and accountability that reduce the likelihood of substance use disorders, as observed in the United States, United Kingdom, and other global contexts (Volkow & Blanco, 2023; Navaneetham et al., 2022; Grant et al., 2022; Pirzadeh & Parsakia, 2023). Nigerian studies similarly report higher substance use among unmarried, separated, or divorced individuals, attributing this to social isolation, stress, and peer influence, while marriage confers emotional support and responsibility that discourage substance use (Adenekan et al., 2022; Okafor & Olatunji, 2021; Oluwole et al., 2020). Collectively, these findings underscore the cross-cultural protective role of marriage against PSUD and support the relevance of Hirschi's Social Bond Theory, which posits that strong social ties reduce deviant behaviors such as substance use (Le Banc & Caplan et al., 2023). Consequently, integrating marital and family dynamics into prevention and rehabilitation strategies may strengthen emotional resilience and reduce substance use risk globally (Onah et al., 2025; Joseph et al., 2024).

The study found a statistically significant association between lower educational attainment and psychoactive substance use disorder (PSUD), with individuals with PSUD more likely to have only primary or secondary education, while a substantially higher proportion of non-PSUD respondents had attained tertiary education. This inverse relationship between education and

substance use is consistent with Nigerian studies showing that lower educational levels are associated with increased vulnerability to psychoactive substance use due to limited health awareness, weaker coping skills, and reduced social and economic opportunities (Adeloye et al., 2019; Oshodi et al., 2020; Eze et al., 2021). International evidence similarly confirms the protective role of education, with large cohort and longitudinal studies in Sweden, Europe, and the United States demonstrating significantly higher risks of substance use disorders among individuals with lower educational attainment and poorer academic performance (Kosterman et al., 2019; Björkenstam et al., 2023; de Looze et al., 2023). Collectively, these findings highlight educational attainment as a key social determinant of health that both reduces exposure to substance use and enhances resilience through improved life skills, social integration, and economic prospects (Amundsen et al., 2022; Wang et al., 2022). The association is further supported by theoretical frameworks, including the Social Determinants of Health model, Problem Behavior Theory, and strain theory, which explain how limited educational opportunities can normalize risky behaviors and increase susceptibility to substance misuse (Throuvala et al., 2021; Petiot & Kermarrec, 2025).

Low income was strongly associated with psychoactive substance use disorder (PSUD), as most respondents with PSUD earned below the national minimum wage, while the majority of non-PSUD respondents earned above it. Nigerian evidence consistently links poverty, unemployment, and low socioeconomic status to increased substance use, largely due to economic stress, social exclusion, and the use of drugs as maladaptive coping mechanisms (Babalola et al., 2020; Owoyomi, 2021; Onyebuchi & Ezegwui, 2022; Adeleke et al., 2024; NBS, 2020). International studies similarly demonstrate that harmful substance use is concentrated among low-income populations and driven by structural disadvantage, limited access to services, and heightened exposure to stress and drug availability (WHO, 2016; Elton-Marshall et al., 2021; EMCDDA, 2022; Volkow & Blanco, 2023). These findings are supported by Relative Deprivation and Social Disorganization theories, which explain how income inequality and community-level deprivation increase vulnerability to substance use, underscoring the need for poverty reduction and social welfare interventions in PSUD prevention (Errol et al., 2021; Baron et al., 2023; Belfiore et al., 2024).

Family history is a strong and consistent predictor of psychoactive substance use disorder (PSUD), with individuals from substance-using families being four to eight times more likely to develop dependence due to the combined effects of genetic vulnerability and environmental modeling (NIDA, 2018; Kendler et al., 2012; Yang et al., 2025). Nigerian studies similarly show that exposure to parental or sibling substance use increases early initiation, lowers self-control, and normalizes drug use as a coping strategy (Dash et al., 2020; Eze et al., 2021; Ojo et al., 2022; Liu et al., 2022). International evidence from the United States, Sweden, and Canada further confirms that familial transmission of substance use reflects an interaction between inherited susceptibility and permissive or poorly supervised family environments (Kendler & Prescott, 2013; Thompson et al., 2019; van Draanen et al., 2022). These findings align with Social Learning Theory and Family Systems Theory, which explain how observed behaviors, weak family cohesion, and inadequate monitoring reinforce substance use across generations, while supportive and well-regulated family environments can mitigate genetic risk (Bandura, 1977; Trucco et al., 2017; Bozzatello et al., 2021; Kaminski et al., 2022).

Perceived social support is a critical protective factor in psychoactive substance use outcomes, as strong emotional, familial, and community ties enhance psychological well-being and reduce reliance on maladaptive coping strategies such as substance use (Yang et al., 2022; Crouse et al., 2022; Sharp et al., 2023). Nigerian studies consistently show that weak family bonds, social isolation, and limited peer support are associated with higher rates of substance use and chronic dependence, particularly among students, unemployed youths, and individuals in treatment settings (Alves et al., 2021; Babalola et al., 2020; Ibiyemi et al., 2025). International evidence similarly demonstrates that low perceived social support predicts increased risk of alcohol and drug dependence, while the quality of supportive relationships is more influential than their number (Brezing et al., 2016; Jansen, 2021; Kourou et al., 2021; Muir et al., 2022). These findings align with the Stress-Buffering Model of Social Support, which explains how supportive networks mitigate stress, promote adaptive coping, and enhance resilience, whereas social isolation increases emotional distress and vulnerability to substance use (Yin et al., 2022; Bondarchuk et al., 2024). In collectivist contexts such as Nigeria, the erosion of family and community support further heightens risk, underscoring the importance of family- and

community-based interventions in sustaining recovery and preventing relapse (Akunna et al., 2023; Ugwu et al., 2024).

Comparison of Self esteem, Emotional Intelligence and Family Dynamics between Respondents with or without Psychoactive Substance Use Disorder

The study found a statistically significant association between self-esteem, emotional intelligence (EI), and psychoactive substance use disorders (PSUDs). Individuals with low self-esteem were more likely to engage in substance use, supporting evidence that diminished self-worth increases vulnerability to drug and alcohol use through emotional distress and maladaptive coping, consistent with findings from Nigeria and international studies (Pereira et al., 2023; Newman et al., 2023; Olaoye et al., 2020; Arsandaux et al., 2021). However, the presence of substance use among some individuals with normal self-esteem highlights the multifactorial nature of substance use behavior, influenced by social, environmental, and sensation-seeking factors (Volkow & Blanco, 2023; Brajković et al., 2022).

Similarly, emotional intelligence showed a strong protective relationship with substance use, as respondents with higher EI were significantly less likely to have PSUDs, while lower EI was associated with greater vulnerability and relapse risk (Maghawry et al., 2025; Henning et al., 2021). Nigerian and global studies consistently demonstrate that emotional regulation, empathy, and self-awareness reduce susceptibility to peer pressure and stress-related substance use (Emmanuel, 2021; Adewale & Olatunji, 2022; Robinson et al., 2024). Overall, these findings underscore the importance of enhancing self-esteem and emotional intelligence within prevention and rehabilitation programs, while simultaneously addressing broader social and environmental determinants of substance use (Sharma et al., 2025; Mendelo et al., 2024).

The study found a statistically significant association between family dynamics and psychoactive substance use disorder (PSUD), with a markedly higher proportion of substance users originating from unbalanced family settings, highlighting family dysfunction as a major psychosocial risk factor (Antoun et al., 2025; Paley et al., 2022). Consistent global and Nigerian evidence shows that family conflict, poor communication, weak parental monitoring, and emotional neglect increase vulnerability to substance use, while cohesive and supportive family environments are

protective (Pourmovahed et al., 2022; Monari et al., 2024; Yahaya et al., 2025; Eze et al., 2023). Although family imbalance was also common among non-users, suggesting that dysfunction alone is not deterministic, its effects may be moderated by resilience and external protective influences such as school and community support (Saladino et al., 2021; Zeng & Tan, 2021). These findings align with Ecological Systems Theory, Family Systems Theory, and Social Learning Theory, underscoring the importance of family-based prevention and therapeutic interventions in reducing PSUD risk (Bandura, 1977; Baptist et al., 2022; Jones et al., 2024).

Summary

The study identified several key sociodemographic and psychosocial factors associated with psychoactive substance use disorder (PSUD). Marital status emerged as a significant correlate, with a higher prevalence of PSUD among single individuals, supporting the notion that marriage provides emotional stability and social regulation that protect against substance use.. Income disparities were also evident 87% of PSUD respondents earned below the national minimum wage, linking poverty and financial stress to increased drug vulnerability. A strong family history of substance use was prevalent among users, indicating both genetic and social modeling pathways for addiction. Furthermore, low perceived social support emerged as a critical predictor, where emotional neglect, isolation, and stigma intensified the risk and persistence of substance use. Psychologically, low self-esteem and emotional intelligence (EI) were significantly associated with PSUD. Individuals with PSUD often exhibited poor emotional regulation and diminished self-worth, though some still had average self-esteem or EI, reflecting the complex nature of addiction Overall, the findings underscore PSUD as a multifaceted disorder shaped by sociodemographic vulnerabilities, familial and emotional contexts, and modifiable psychological factors.

Limitations.

Its cross-sectional design limits the ability to establish causal relationships between sociodemographic factors, family dynamics, self-esteem, emotional intelligence, and psychoactive substance use disorder. Additionally, participants were recruited from healthcare facilities, which may not accurately represent the broader community, thereby limiting the generalizability of the findings. Furthermore, data on emotional intelligence, self-esteem, and

family dynamics were collected using self-report questionnaires, which are susceptible to social desirability and recall biases.

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Conflict of interest

The authors declare that they have no conflict of interest.

Consent for Publication

Not applicable.

Availability of Data and Materials

The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request.

References

- Adeleke, R., & Iyanda, A. E. (2024). Analyzing the geographic influence of financial inclusion on illicit drug use in Nigeria. *Spatial and Spatio-temporal Epidemiology*, 49, 100655.
- Akpunne, B. C., Akinnawo, E. O., Bello, I. B., & Olajire, O. O. (2020). Psychoactive Substance Use, Sexual Harassment, and Self-Esteem Among Female Nigerian Undergraduates: Prevalence, Patterns, and Associations. *International Journal of High Risk Behaviors and Addiction* 2020 9:2, 9(2). <https://doi.org/10.5812/IJHRBA.100111>
- Akunna, G.G. and Lucyann, C.A., 2023. Nigeria's War Against Drug Abuse: Prevalence, Patterns, Ramifications, Policy and Multisectoral Response, Strategies and Solutions. *Studies in Social Science & Humanities*, 2(10), pp.35-55.
- Alves, R., Precioso, J., & Becoña, E. (2021). Illicit Drug Use among College Students: The Importance of Knowledge about Drugs, Live at Home and Peer Influence. *Journal of Psychoactive Drugs*, 53, 329–338. <https://doi.org/10.1080/02791072.2020.1865592>
- Amundsen, E. J., Bretteville-Jensen, A. L., & Rossow, I. (2022). Patients admitted to treatment for substance use disorder in Norway: a population-based case–control study of socio-demographic correlates and comparative analyses across substance use disorders. *BMC Public Health*, 22. <https://doi.org/10.1186/s12889-022-13199-5>
- Baron, S. W. (2023). Marketized mentality and instrumental offending: the overlooked roles of noneconomic institutions and relative deprivation in individual level institutional anomie theory. *Journal of Crime and Justice*, 46(3), 331-347.
- Beider, N. (2023). Religious residue: The impact of childhood religious socialization on the religiosity of nones in France, Germany, Great Britain, and Sweden. *British Journal of Sociology*, 74, 50–69. <https://doi.org/10.1111/1468-4446.12982>
- Belfiore, C. I., Galofaro, V., Cotroneo, D., Lopis, A., Tringali, I., Denaro, V., & Casu, M. (2024). A multi-level analysis of biological, social, and psychological determinants of substance use disorder and co-occurring mental health outcomes. *Psychoactives*, 3(2), 194-214

Bondarchuk, O., Balakhtar, V., Pinchuk, N., Pustovalov, I., & Pavlenok, K. (2024). Coping with stressful situations using coping strategies and their impact on mental health. *Multidisciplinary Reviews*, 7(Special Issue), 2024spe034-2024spe034.

Bozzatello, P., Rocca, P., Baldassarri, L., Bosia, M., & Bellino, S. (2021). The role of trauma in early onset borderline personality disorder: a biopsychosocial perspective. *Frontiers in psychiatry*, 12, 721361.

Crouse, J. J., Ho, N., Scott, J., Parker, R., Park, S. H., Couvy-Duchesne, B., ... & Hickie, I. B. (2022). Dynamic networks of psychological symptoms, impairment, substance use, and social support: The evolution of psychopathology among emerging adults. *European Psychiatry*, 65(1), e32.

Di Sarno, M., De Candia, V., Rancati, F., Madeddu, F., Calati, R., & Di Pierro, R. (2021). Mental and physical health in family members of substance users: A scoping review. *Drug and Alcohol Dependence*, 219, 108439. <https://doi.org/10.1016/J.DRUGALCDEP.2020.108439>

Eddah, K. H., & Loong'onyo, P. M. (2024). The role of family in the initiation and enabling of alcohol and substance abuse. *African Journal of Alcohol and Drug Abuse*, 11(1), 112-128.

EL-Hamady, M. M., Elazab, W. E., Mahmoud, M. M., & Abdel Hamid, B. H. (2024). Patterns of Interactions Between Family Members and Its Relation to Drug Addiction. *Benha Journal of Applied Sciences*, 9(1), 37-44.

Emmanuel, G. O., Akinsolu, F. T., Abodunrin, O. R., & Ezechi, O. C. (2024). Prevalence and patterns of substance use in West Africa: A systematic review and meta-analysis. *PLOS Global Public Health*, 4(12), e0004019. <https://doi.org/10.1371/JOURNAL.PGPH.0004019>

Errol, Z., Madsen, J. B., & Moslehi, S. (2021). Social disorganization theory and crime in the advanced countries: Two centuries of evidence. *Journal of Economic Behavior & Organization*, 191, 519-537.

Friedman, S. R., Williams, L. D., Jordan, A. E., Walters, S., Perlman, D. C., Mateu-Gelabert, P., Nikolopoulos, G. K., Khan, M. R., Peprah, E., & Ezell, J. (2022). Toward a Theory of the Underpinnings and Vulnerabilities of Structural Racism: Looking Upstream from Disease Inequities among People Who Use Drugs. In *International Journal of Environmental Research and Public Health* (Vol. 19). MDPI. <https://doi.org/10.3390/ijerph19127453>

Gaspar, T., Gomez-Baya, D., Trindade, J. S., Botelho Guedes, F., Cerqueira, A., & de Matos, M. G. (2021). Relationship Between Family Functioning, Parents' Psychosocial Factors, and Children's Well-Being. <https://doi.org/10.1177/0192513X211030722>, 43(9), 2380–2397. <https://doi.org/10.1177/0192513X211030722>

Guo, J., Asmawi, A., & Fan, L. (2024). The mediating role of emotional intelligence in the relationship between social anxiety and communication skills among middle school students in

China. *International Journal of Adolescence and Youth*, 29.

Hatoum, A. S., Colbert, S. M. C., Johnson, E. C., Huggett, S. B., Deak, J. D., Pathak, G. A., Jennings, M. V., Paul, S. E., Karcher, N. R., Hansen, I., Baranger, D. A. A., Edwards, A., Grotzinger, A. D., Zillich, L., Zill, P., Zhou, H., Zhao, H., Zhang, H., Zellers, S., ... Agrawal, A. (2023). Multivariate genome-wide association meta-analysis of over 1 million subjects identifies loci underlying multiple substance use disorders. *Nature Mental Health*, 1, 210–223. <https://doi.org/10.1038/s44220-023-00034-y>

HAYNES, M. (2022). Low-Income Communities and the Impact on Mental Health and Substance Use Disorder.

Henning, M., Subic-Wrana, C., Wiltink, J., & Beutel, M. (2020). Anxiety Disorders in Patients with Somatic Diseases. *Psychosomatic Medicine*, 82(3), 287–295. <https://doi.org/10.1097/PSY.0000000000000779>

Ibiyemi, O., Idris, A., Oluwakemi, A., Praise, O., Omotayo, F., Ayodeji, O., Augustine, A., Gbolahan, O. and John, O., 2025. Psychosocial Factors as Predictors of Relapse Rate Among Substance Use Disorders Patients in A Mental Health Facility in Nigeria. *International Journal of Innovative Science and Research Technology*, 10(6), pp.1454-1462.

Joseph, A. P., Babu, A., & Prakash, L. T. O. (2024). Parenting Amid Shadows: Exploring the Child-Rearing Experiences of Wives of Individuals With Alcohol Use Disorder. *Cureus*. <https://doi.org/10.7759/cureus.58105>

Kaminski, J. W., Robinson, L. R., Hutchins, H. J., Newsome, K. B., & Barry, C. M. (2022). Evidence base review of couple-and family-based psychosocial interventions to promote infant and early childhood mental health, 2010–2019. *Journal of marital and family therapy*, 48(1), 23–55.

Kasperson, J. X., Kasperson, R. E., Turner, B. L., Hsieh, W., & Schiller, A. (2022). Vulnerability to global environmental change. In *Social contours of risk* (pp. 245-285). Routledge.

Kokotovič, K. O., Pšunder, M., & Kirbiš, A. (2022). Cannabis use and parenting practices among young people: the impact of parenting styles, parental cannabis-specific rules, and parental cannabis use. *International journal of environmental research and public health*, 19(13), 8080.

Kourou, K., Manikis, G., Poikonen-Saksela, P., Mazzocco, K., Pat-Horenczyk, R., Sousa, B., Oliveira-Maia, A. J., Mattson, J., Roziner, I., Pettini, G., Kondylakis, H., Marias, K., Karademas, E., Simos, P., & Fotiadis, D. I. (2021). A machine learning-based pipeline for modeling medical, socio-demographic, lifestyle and self-reported psychological traits as predictors of mental health outcomes after breast cancer diagnosis: An initial effort to define resilience effects. *Computers in Biology and Medicine*, 131. <https://doi.org/10.1016/j.compbiomed.2021.104266>

Lavrič, M., Korže, V., & Klanjšek, R. (2023). Religiosity and Substance Use Among Youth in

Southeast Europe: The Importance of God as the Strongest Protective Religious Dimension. *Journal of Drug Issues*, 53, 359–374. <https://doi.org/10.1177/00220426221121123>

Liu, Y., Chen, Y., Fraga-González, G., Szpak, V., Laverman, J., Wiers, R. W., & Richard Ridderinkhof, K. (2022). Resting-state EEG, Substance use and Abstinence After Chronic use: A Systematic Review. *Clinical EEG and Neuroscience*, 53, 344–366. <https://doi.org/10.1177/15500594221076347>

Livne, O., Wengrower, T., Feingold, D., Shmulewitz, D., Hasin, D. S., & Lev-Ran, S. (2021). Religiosity and substance use in U.S. adults: Findings from a large-scale national survey. *Drug and Alcohol Dependence*, 225. <https://doi.org/10.1016/j.drugalcdep.2021.108796>

Mathieu, S., Treloar, A., Hawgood, J., Ross, V., & Kölves, K. (2022). The role of unemployment, financial hardship, and economic recession on suicidal behaviors and interventions to mitigate their impact: a review. *Frontiers in public health*, 10, 907052.

Megersa, W., & Tefera, B. (2021). Validation of Family Adaptability and Cohesion Evaluation Scale (FACES-IV) in Afan Oromo contexts for measuring family functioning. *East African Journal of Social Sciences and Humanities*, 6(2), 149-172.

Muir, C., Adams, E. A., Evans, V., Geijer-Simpson, E., Kaner, E., Phillips, S. M., ... & McGovern, R. (2023). A systematic review of qualitative studies exploring lived experiences, perceived impact, and coping strategies of children and young people whose parents use substances. *Trauma, Violence, & Abuse*, 24(5), 3629-3646.

Muir, C., McGovern, R., & Kaner, E. (2022). Stigma and young people whose parents use substances. In *Drugs, identity and stigma* (pp. 173-196). Cham: Springer International Publishing.

Navaneetham, P., & Kanth, B. (2022). Effects of Personal relationships on Physical and Mental Health among young Adults-A scoping review. *The Open Psychology Journal*, 15(1).

Obeid, S., Haddad, C., Fares, K., Malaeb, D., Sacre, H., Akel, M., Salameh, P., & Hallit, S. (2021). Correlates of emotional intelligence among Lebanese adults: the role of depression, anxiety, suicidal ideation, alcohol use disorder, alexithymia and work fatigue. *BMC Psychology*, 9(1), 1–12. <https://doi.org/10.1186/S40359-021-00525-6/TABLES/5>

Ojo, T. F., Agboola, E. B., & Kukoyi, O. B. (2022). Family factors and psychoactive substance use among adolescents in Nigeria. In *Families in Nigeria: Understanding their diversity, adaptability, and strengths* (pp. 87-98). Emerald Publishing Limited.

Onah, C., & Mataluwo, B. (2025). Family dynamics and religious affiliations as a system to reduce substance abuse among adolescents. *Academic Journal of Psychology and Counseling*, 6(2), 303-338.

- Onaolapo, O. J., Olofinnade, A. T., Ojo, F. O., Adeleye, O., Falade, J., & Onaolapo, A. Y. (2022). Substance use and substance use disorders in Africa: An epidemiological approach to the review of existing literature. *World Journal of Psychiatry, 12*(10), 1268. <https://doi.org/10.5498/WJP.V12.I10.1268>
- Olson, D. H., Portner, J., & Lavee, Y. (1985). *FACES III: Family Adaptability and Cohesion Evaluation Scales*. University of Minnesota.
- Rinaldi, R., Bersani, G., Marinelli, E., & Zaami, S. (2020). The rise of new psychoactive substances and psychiatric implications: A wide-ranging, multifaceted challenge that needs far-reaching common legislative strategies. *Human Psychopharmacology: Clinical and Experimental, 35*(3), e2727. <https://doi.org/10.1002/HUP.2727>
- Rivera, C. and Lauger, T., 2021. The protective effects of religious group membership, service attendance, and scripture reading on binge drinking among college students. *Pastoral Psychology, 70*(2), pp.125-140.
- Rosenberg, M. (1965). *Society and the Adolescent Self-Image*. Princeton University Press.
- Snoek, A., McGeer, V., Brandenburg, D., & Kennett, J. (2021). Managing shame and guilt in addiction: A pathway to recovery. *Addictive Behaviors, 120*. <https://doi.org/10.1016/j.addbeh.2021.106954>
- Ugwu, J. N., Nnam, M. U., Iloma, D. O., Chiegeonu, A. M., Kelvin-Iloafu, L. E., Udeze, C. C. G., & Iroegbu, N. F. (2024). Workplace drug use, emotion regulation, and perceived family income among Nigerian employees. *Journal of Workplace Behavioral Health*. <https://doi.org/10.1080/15555240.2024.2394688>
- Van Draanen, J., & Aneshensel, C. S. (2022). Parental and own substance use disorder: The intersection of gender and early adversity. *Drug and alcohol dependence, 234*, 109393.
- Wang, Y. (2023). Influence of Early Family Nurturing Environment on Children's Psychological and Emotional Social Development. *Iranian Journal of Public Health, 52*(10), 2138.
- Wittenborn, A. K., Hosseinichimeh, N., Rick, J. L., & Tseng, C. F. (2020). Systems Theory and Methodology. *The Handbook of Systemic Family Therapy, Set, 1–4*, 97–118. <https://doi.org/10.1002/9781119438519.CH5>
- Wong, C. S., & Law, K. S. (2002). *The effects of leader and follower emotional intelligence on performance and attitude*. *Leadership Quarterly, 13*(3), 243–274.
- Yang, B., Liu, J., Chou, O. H. I., Gu, Q., Cheung, B. M. Y., Tse, G., Wong, W. T., Zhu, T., Ng, K., Wong, W. C. W., Man, K., Wong, D., & Zhou, J. (2025). *Impact of Comorbidity and Drug Use Patterns on Recurrence and Mortality Risks in Primary Hepatocellular Carcinoma: A Chinese Cohort Network Analysis Study*. <https://doi.org/10.1101/2025.07.05.25330803>

Yin, Y., Lyu, M., Chen, Y., Zhang, J., Li, H., Li, H., ... & Zhang, J. (2022). Self-efficacy and positive coping mediate the relationship between social support and resilience in patients undergoing lung cancer treatment: a cross-sectional study. *Frontiers in Psychology, 13*, 953491.

Figures:

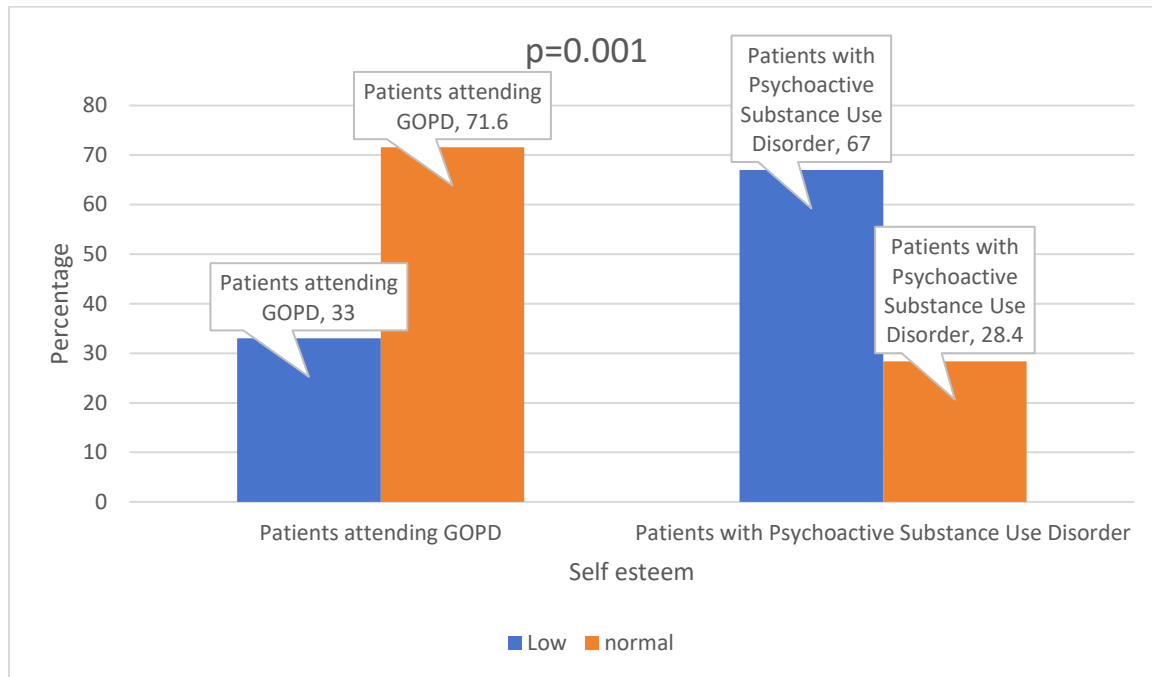


Figure 1 Association of Self-esteem and psychoactive substance use disorder

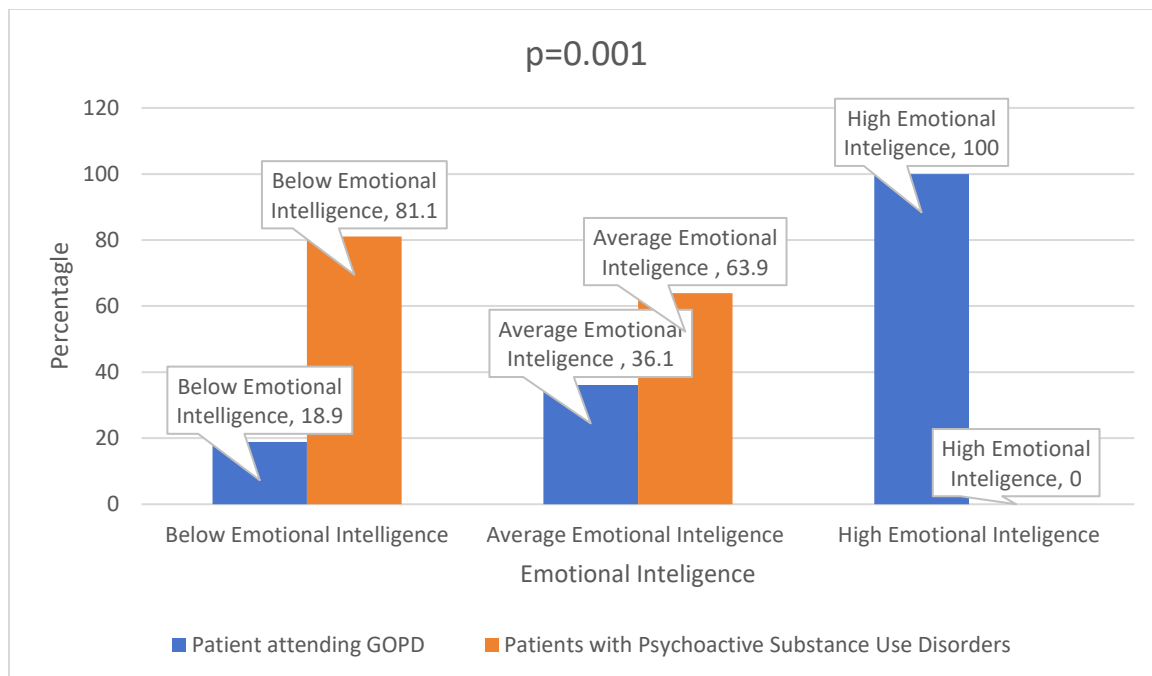


Figure 2 Association between Emotional Intelligence and psychoactive substance use disorder among respondents

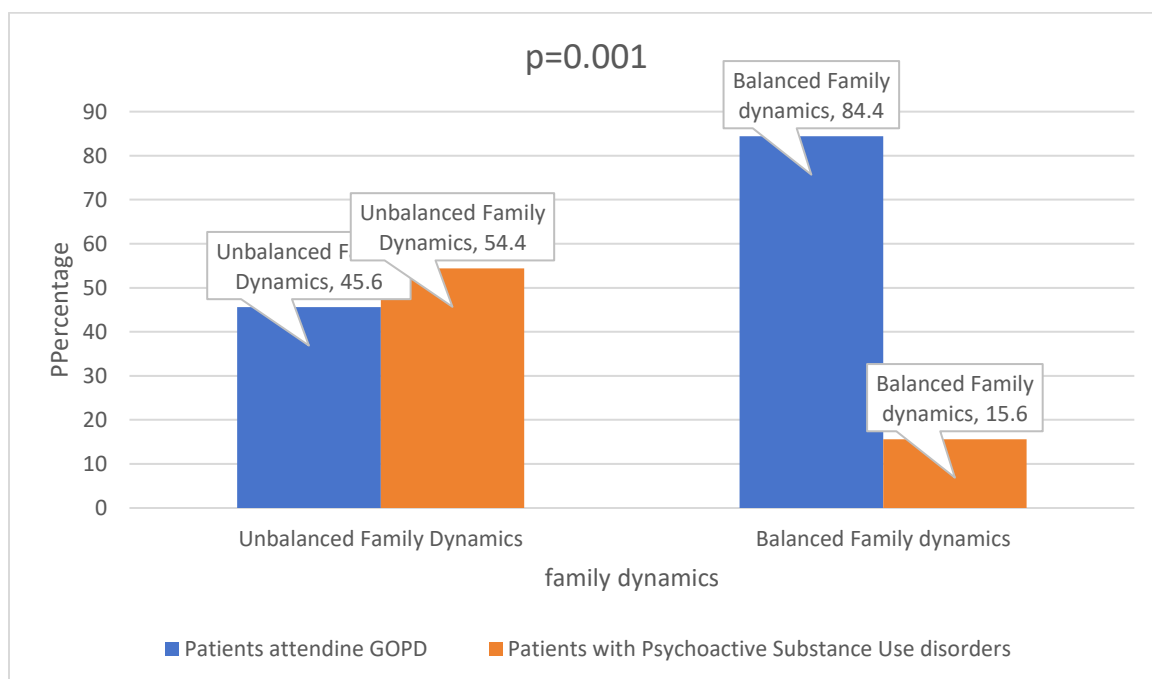


Figure 3 Association between family dynamics and psychoactive substance use among respondents

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