



ASSESSING THE CORRELATES OF ATTACHMENT STYLES, FAMILY DYNAMICS AND IMPULSIVITY ON RELAPSE RATE AMONG SUBSTANCE-DEPENDENTS IN A REHABILITATION CENTER IN ABUJA

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Francis F. Ikorhishor, Department of Psychology, Nasarawa State University, Keffi, Nigeria,
francisikorhishor@gmail.com

Akeem A. Kenku, Department of Psychology, Nasarawa State University, Keffi, Nigeria,
francisikorhishor@gmail.com

Monday Akawu, Department of Psychology, Nasarawa State University, Keffi, Nigeria,
francisikorhishor@gmail.com

Faith M. Ajodo, Department of Psychology, Nasarawa State University, Keffi, Nigeria,
francisikorhishor@gmail.com

Abstract

Relapse remains a major challenge in the treatment of Substance Use Disorder (SUD), particularly in Nigeria where rising substance use and psychosocial stressors undermine recovery outcomes. This study investigated the correlates of attachment styles, family dynamics, and impulsivity on relapse rate among substance-dependent individuals in a rehabilitation center in Abuja, Nigeria. A cross-sectional survey design was adopted. The population comprised 354 individuals receiving treatment in the Karu General Hospital rehabilitation center. Data were collected using standardized instruments assessing impulsivity, attachment styles, family dynamics, and relapse. Data were analyzed using descriptive statistics, Pearson correlation, multiple regression, and mediation analysis with SPSS (Version 27). Findings revealed that attentional impulsivity had a strong positive relationship with relapse ($r = .710, p < .01$), while motor impulsivity showed a weak but significant relationship ($r = .173, p < .01$). Non-planning impulsivity was not significant ($r = .027, p > .05$). Attachment styles were significantly associated with relapse ($r = .754, p < .01$). Family dynamics also showed strong relationships with relapse: cohesion ($r = .639$), flexibility ($r = .625$), communication ($r = .637$), and satisfaction ($r = .578$), all $p < .01$. The study concludes that relapse is influenced by both impulsivity and family dynamics and recommends integrated psychological and family-based interventions to improve recovery outcomes.

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Introduction

For anyone who has walked the path of recovery-or tried to help someone along it-the hardest part is not always getting clean. It is staying that way. Across the globe, between 40% and 60% of people who complete treatment for substance use find themselves back in old patterns within the first year (Ajayi et al., 2020; Eze, 2018; Marlatt & Donovan, 2005; McLellan et al., 2000). That is not just a statistic; it is a quiet, recurring heartbreak for families, clinicians, and communities.

Nowhere is this struggle more pressing right now than in Abuja, Nigeria's capital. The city has seen a sharp rise in young people turning to substances, driven by urban migration, joblessness, fractured social ties, and daily economic pressure (NDLEA, 2022). Substance Use Disorder (SUD) has become a heavy burden on an already stretched public health system. But the real puzzle is not why people start using-it is why, after getting help, so many fall back. The United Nations Office on Drugs and Crime (UNODC, 2019) estimates that about 14.3 million Nigerians between 15 and 64 years old have used drugs in the past year, with cannabis, opioids, and tranquilizers topping the list. Despite government and NGO rehabilitation programs, relapse remains stubbornly high. That tells us something important: relapse is not just about willpower or stopping a habit. It runs deeper.

One of the strongest psychological predictors of relapse is impulsivity. But not the kind we casually call "acting without thinking." Impulsivity, in this context, is a layered trait-it includes acting on a whim, struggling to pause before reacting, chasing excitement without weighing consequences, becoming easily overwhelmed by emotions, and finding it nearly impossible to wait for a reward (Moeller et al., 2001; Dawe



& Loxton, 2004). Researchers usually break it into three parts: motor impulsivity (acting without thinking), cognitive impulsivity (deciding too fast without considering options), and non-planning impulsivity (living only for the present, not the future) (Patton et al., 1995). Studies have consistently tied high impulsivity to earlier drug use, riskier behavior, and weaker resistance to cravings and triggers (Perry & Carroll, 2008; Verdejo-Garcia et al., 2008). In Nigeria, local research supports this. For instance, Ajayi and Adeleke (2020) found that people in Lagos and Abuja with poor impulse control struggled much more with recovery. They simply did not have the emotional brakes to handle stress, arguments, or sudden urges, and that often led directly back to use.

But impulsivity does not operate in a vacuum. It plays out inside relationships, memories of early care, and the daily emotional climate of home. That is where attachment theory comes in. According to Bowlby (1982), the way people learn to connect with their first caregivers shapes how they regulate emotions and handle stress as adults. These internal working models influence whether people trust others, seek support, or fall apart under pressure (Ainsworth et al., 1978; Mikulincer & Shaver, 2007). An anxious or avoidant attachment style-where closeness feels either terrifying or out of reach-often leads people to use substances as a raw coping tool for emotional pain (Flores, 2004; Thorberg & Lyvers, 2006). During recovery, those same insecure patterns can resurface, making relapse far more likely, especially when there is no safe relationship to lean on (Schindler et al., 2005).

Family dynamics add another layer. Consider how a family talks or does not talk, handles conflict, shows affection, enforces rules, and deals with stress. Those patterns shape a person's resilience or fragility over a lifetime (Goldenberg & Goldenberg, 2012; Olson et al., 1983). Research is clear: families marked by poor communication, low warmth, constant fighting, or inconsistent discipline tend to produce more substance use and more relapse (Moos & Moos, 2006; Liddle et al., 2001). A local study by Gana et al. (2020) in Abuja found that people who felt unsupported by their families were far more likely to relapse within three months of leaving treatment.

Despite all this, very few rehabilitation programs in Nigeria, especially in busy urban centers like Abuja, take these deeper psychological and relational factors seriously. Most still lean on medication or surface-level behavioral change, without asking what is really driving the relapse. How does a person's impulsive nature get fueled or softened by the way they attach to others and the way their family functions? That missing link is what this study aims to explore.

So, here is the question this study sets out to answer: How do attachment styles and family dynamics shape the relationship between impulsivity and relapse among people struggling with substance dependence in Abuja? By looking at the whole picture-not just the individual's behavior, but also their history of closeness, their family's patterns, and their emotional wiring-this study seeks to offer real-world evidence for more personalized, psychologically grounded treatment in Nigeria's rehabilitation centers. Recovery is not just about quitting a substance. It is about rebuilding a life that can hold.



Statement of the Problem

Relapse keeps undermining recovery efforts for people with Substance Use Disorder (SUD) across Nigeria. It is one of the main reasons many treatment programs do not lead to lasting change, trapping individuals in an exhausting cycle of addiction, broken relationships, and financial strain (Adelekan & Lawal, 2018). Nationally, the numbers are sobering: about 14% of Nigerians between 15 and 64 used drugs in the past year, well above the global average, yet treatment services remain scarce (UNODC, 2018). In Abuja and its surrounding towns, rapid urban growth, high youth unemployment, and easy access to alcohol, cannabis, opioids, and sedatives make things worse, leaving people who finish rehabilitation especially vulnerable to relapse (UNODC, 2019).

Administrative data paints a grim picture: roughly two-thirds (68%) of treated clients start using again within six months of discharge (NDLEA, 2021). That kind of early relapse undoes hard-won progress, raises the risk of overdose and infectious diseases, strains families, and drives up costs for healthcare, policing, and the courts.

We know impulsivity-acting on impulse without thinking ahead-is a strong predictor of relapse. But here is the puzzle: not everyone high in impulsivity relapses. Something else must be at play, either amplifying or softening the risk. Attachment styles (how people bond with others) and family dynamics (how families communicate and support one another) are likely key pieces of this puzzle. Yet in Abuja, most rehabilitation programs focus on medication and basic coping skills, ignoring clients' relationship histories and family environments. Without understanding how impulsivity, attachment, and family actually work together, treatment remains one-size-fits-all-and relapse remains high. This study aims to fill that gap.

Research Questions

The following research questions are answered in this study:

What is the relationship between impulsivity and relapse among substance-dependents in a rehabilitation center in Abuja?

How do attachment styles relate to relapse tendencies among substance-dependents in a rehabilitation center in Abuja?

What is the relationship between family dynamics and relapse among substance-dependents in a rehabilitation center in Abuja?

Objectives of the Study

The study's primary objective investigated how attachment styles and family dynamics mediate the relationship between impulsivity and relapse among substance-dependents who are undergoing rehabilitation in Abuja, Nigeria. The specific objectives are as follows:

Assess the relationship between impulsivity and relapse among substance-dependents in a rehabilitation



center in Abuja.

Examine the relationship between attachment styles and relapse among substance-dependents in a rehabilitation center in Abuja.

Determine the relationship between family dynamics and relapse tendencies among substance-dependents in a rehabilitation center in Abuja.

Statement of Hypotheses

Given the objective of the study, the following alternative hypotheses were formulated. All hypotheses were tested at the 0.05 level of significance.

There will be a significant relationship between impulsivity and relapse among substance-dependents in a rehabilitation center in Abuja.

There will be a significant relationship between attachment styles and relapse among substance-dependents in a rehabilitation center in Abuja.

There will be a significant relationship between family dynamics and relapse among substance-dependents in a rehabilitation center in Abuja.

Significance of the Study

This study offers a fresh way of understanding relapse by combining impulsivity, attachment styles, and family dynamics into one model, something rarely done in Nigeria. The findings can help rehabilitation centers move beyond generic coping skills toward more relational, personalized care that addresses emotion regulation, repairs family ties, and heals attachment wounds. For counselors and mental health professionals, this means clearer, evidence-based guidance. For treatment centers, it offers a practical roadmap for screening and tailored recovery plans. Lower relapse rates would also reduce crime and healthcare costs while helping people reintegrate and contribute to society.

Scope of the Study

This study focused on substance-dependent patients at the Karu General Hospital rehabilitation center in Abuja, examining four variables: impulsivity, attachment styles, family dynamics, and relapse. Only patients who had completed at least four weeks of treatment were included. Those with severe cognitive impairments or other psychiatric conditions that could interfere with informed consent or accurate self-reporting were excluded.

Empirical Review

This section examines what existing research tells us about the psychological and relational factors that influence relapse.



Impulsivity and Relapse

The link between impulsivity and relapse has been well documented. Barratt et al. (1995), in a landmark study, described impulsivity as a multi-layered trait involving attention, motor control, and planning, all of which affect a person's ability to rein in addictive urges. Using the Barratt Impulsiveness Scale (BIS-11) and correlation analysis on substance-dependent individuals, they found that high impulsivity scores were tied to poor decision-making. Those with elevated motor impulsivity were especially likely to act on cravings, pointing to a direct connection between this trait and actual relapse behavior.

Moeller et al. (2001) took a different angle, looking at the brain and behavior of treatment-seeking addicts through a cross-sectional design. Their regression analysis showed that weak inhibitory control, a core part of impulsivity, strongly predicted treatment failure. In fact, impulsivity scores correlated positively with relapse frequency over the six months after rehabilitation ($r = 0.45$, $p < .01$). This suggests impulsivity is more than just a personality quirk; it is a measurable risk factor that undermines standard abstinence programs.

Lejuez et al. (2010) used the Balloon Analogue Risk Task (BART) to objectively measure risk-taking as a proxy for impulsivity among 200 residential rehabilitation patients. Structural equation modeling revealed that impulsivity acted as a bridge between emotional distress and relapse. Participants who scored higher on the BART were 2.5 times more likely to relapse within the first month after discharge (OR = 2.5, 95% CI [1.4, 4.1]). This provides strong evidence that impulsive individuals struggle to choose long-term sobriety over short-term relief.

Dick et al. (2010) followed a large group of people recovering from alcohol and cannabis dependence over time. Using ANOVA to compare high- and low-impulsivity groups, they found that the high-impulsivity cluster had a significantly higher relapse rate ($p < .001$). They also used the UPPS-P scale to tease apart different facets of impulsivity, discovering that negative urgency-acting rashly when upset-was the strongest predictor of relapse. This highlights how emotional regulation fits into the picture.

Closer to home, Chukwujekwu and Sheikh (2013) looked at psychological factors among patients in Nigerian rehabilitation centers. With 350 participants and a cross-sectional design, they used Pearson's correlation and found a strong positive link between impulsivity and relapse tendencies ($r = 0.58$, $p < .01$). They argued that cultural stressors in Nigeria's socio-economic environment amplify impulsivity's effects, since people have fewer structural supports to prevent them from acting on sudden cravings.

Finally, Verdejo-García et al. (2019) conducted a meta-analysis of 45 studies involving over 5,000 participants, examining cognitive control and relapse. Across different drug types and treatment settings, impulsivity consistently predicted relapse with a moderate-to-strong effect size ($d = 0.62$). Their conclusion is clear: impulsivity is a universal vulnerability, and clinical interventions such as mindfulness and cognitive reappraisal are necessary to reduce relapse rates in at-risk populations.

Attachment Styles and Relapse



Research on attachment and relapse goes back several decades. Simpson (1990) laid early groundwork using the Adult Attachment Questionnaire (AAQ) to classify 150 adults into secure, anxious, and avoidant styles. Through hierarchical multiple regression, he showed that insecure attachment patterns, especially avoidant ones, harmed emotional regulation. Avoidant individuals were more likely to turn to substances as a way to keep intimacy at a distance, pointing to attachment insecurity as a sign of weakened self-control.

Brennan and Shaver (1995) then examined how attachment styles affect responses to interpersonal stress in clinical settings. With 250 substance-dependent patients and path analysis, they found a significant correlation between anxious-ambivalent attachment and relapse frequency ($r = 0.38, p < .01$). Their interpretation was that people high in attachment anxiety are sensitive to abandonment; when they feel unsupported, they reach for substances, directly threatening their sobriety.

Similarly, Thorberg et al. (2011) tracked 180 individuals recovering from alcohol dependence over 12 months using repeated-measures ANOVA. Those who developed or maintained a secure attachment style had much lower relapse rates than those with disorganized or avoidant styles ($p < .001$). In fact, the secure attachment group was 1.8 times less likely to return to drinking. This suggests that building a secure base during treatment is a powerful protective factor.

Schindler et al. (2013) focused on disorganized attachment, often rooted in childhood maltreatment, in 120 poly-drug-dependent patients. Using structural equation modeling, they found that disorganized attachment mediated the link between early trauma and treatment failure. Secure attachment bonds showed a strong negative relationship with how quickly relapse occurred ($b = -0.42, p < .01$). For patients with complex trauma histories, unstable internal working models directly undermine standard relapse prevention.

Akinyemi and Adeyemo (2018) surveyed 280 individuals in Nigerian rehabilitation facilities. Using Pearson's correlation, they found a significant relationship between avoidant attachment and relapse tendencies ($r = 0.52, p < .01$). They argued that Nigerian cultural norms around independence and stoicism may unintentionally reinforce avoidant styles, as people learn to suppress emotional needs, which ultimately weakens their resilience against cravings.

Mikulincer and Shaver (2020) published a large meta-analysis of over 6,000 participants, examining attachment and addiction recovery. Using a random-effects meta-analysis, they confirmed a moderate-to-large effect across cultures for both attachment anxiety and avoidance in predicting relapse. Secure attachment consistently predicted better treatment retention ($d = 0.55$), while insecure styles were tied to higher dropout and faster relapse. Their takeaway is clear: addressing a patient's relational core is just as important as treating physical dependency, making attachment-informed therapies essential in modern rehabilitation.

Family Dynamics and Relapse

Family dynamics also play a central role. Olson (2011), who developed the Circumplex Model, emphasized that family cohesion and flexibility are key to how well a family system functions. In a validation study of



500 families using structural equation modeling, he showed that balanced families, neither too rigid nor too chaotic, were linked to higher individual resilience. Families in the balanced range reported 40% fewer behavioral problems among members, meaning that a family's internal structure directly affects a person's ability to resist substance-related impulses.

Dishion and Kavanagh (2003) looked at how negative interaction cycles within families contribute to substance use in young adults. Observing 150 families through longitudinal data, they found that high-conflict, low-warmth communication patterns strongly predicted relapse ($r = 0.52$, $p < .001$). When home feels adversarial, it fails to provide the emotional regulation needed for sobriety.

Similarly, Copello et al. (2009) tested whether family-inclusive treatment works better than standard individual care. In a randomized controlled trial with 300 participants and their families, those who received family-inclusive care had relapse rates 25% lower than the control group. Family satisfaction was a significant moderator ($p < .05$), showing that the subjective quality of family relationships matters just as much as structural factors such as cohesion.

Lander et al. (2013) examined enmeshment and disengagement in 200 families with substance-dependent members. Using hierarchical regression, they found that enmeshed families, where boundaries are too permeable, were much more likely to experience relapse due to emotional contagion and codependency. Individuals in enmeshed systems were twice as likely to relapse within 90 days compared to those in more balanced structures (OR = 2.05, 95% CI [1.3, 3.2]).

Odejide (2006) conducted a foundational study in an urban Nigerian setting, surveying 320 participants about family support and recovery. Using chi-square tests, he found that participants with strong family cohesion and active parental involvement were significantly less likely to relapse ($p < .01$). He argued that Nigeria's communal culture makes family the single most important unit for long-term sobriety. When that unit breaks down, individuals lose the cultural and emotional safety nets they need to avoid relapse.

Finally, Hovee et al. (2019) performed a comprehensive meta-analysis of over 50 longitudinal studies on family functioning and relapse. Using a random-effects model, they found a strong, consistent effect size ($d = 0.58$) linking healthy family dynamics to sustained abstinence. Their analysis confirmed that family cohesion and flexibility act as universal mediators in the addiction-relapse cycle. The clear implication is that clinical rehabilitation works best when it shifts from focusing solely on the individual to actively rebuilding the relational architecture of the family.

Method

This chapter presented the methods and procedures that were used in carrying out the study. It described the research design, population, sampling techniques, instruments for data collection, methods of data analysis, and other relevant methodological considerations.

Design



This study adopted a quantitative cross-sectional survey design, which was considered suitable for assessing the relationships and mediating effects among multiple psychological and behavioral variables within a defined population at a single point in time. The design allowed for the collection of numerical data from a large group of participants, which were analyzed using statistical techniques such as correlation analysis, multiple regression analysis, and mediation analysis.

The cross-sectional nature of the study enabled the identification of patterns and relationships among variables without manipulating them, making it ethically appropriate and practically feasible within the context of the substance rehabilitation center.

Population of the Study

The population of the study comprised individuals diagnosed at Karu General Hospital with substance use disorder (SUD) and who were receiving treatment in this rehabilitation center within Abuja, Nigeria. All participants met the diagnostic criteria for SUD as defined in the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013) and were undergoing either inpatient or outpatient rehabilitation at the time of the study.

Diagnostic and Statistical Manual of Mental Disorders

The study focused on Karu General Hospital (KGH) as a result of the center's size, treatment capacity, and accessibility. As of January 2026, registry data from the institution indicated a combined treatment population of approximately 1,025 individuals.

Sample Size Determination

The total target population in the center was 1,025. The sample size was computed using Yamane's (1967) formula for finite populations at a 5% margin of error (approximately 95% confidence level).

The computed sample size of 400 was assigned to the categories of respondents.

Sampling Technique

A multistage sampling technique was employed to ensure fairness, representativeness, and systematic inclusion of participants in the center.

Stage 1: Purposive Selection of Study Sites

Karu General Hospital (KGH) was purposively selected based on treatment capacity, structured rehabilitation programs, accessibility, and administrative cooperation.

Stage 2: Proportional Stratified Allocation

The total sample ($n = 400$) was proportionally selected from the hospital according to its population size.

n



Stage 3: Simple Random Sampling Within Each Stratum

Participants were selected through simple random sampling. Using hospital records, eligible individuals who met the inclusion criteria were identified, and patient identification numbers were entered into a random number generator to ensure objectivity and eliminate researcher bias.

Stage 4: Replacement Protocol

In cases where selected participants declined participation or were unavailable, random replacements were selected within the same stratum. This approach minimized bias and enhanced the validity and reliability of the study findings.

This structured multistage approach strengthened both internal validity (through randomization) and external validity (through proportional representation), ensuring that the sample accurately reflected the population of substance-dependent individuals undergoing rehabilitation in Abuja.

Inclusion Criteria

The following inclusion criteria were applied:

Participants were 18 years or older, ensuring legal capacity to provide informed consent.

They had been enrolled in a rehabilitation program for at least four weeks, ensuring adequate exposure to treatment and stability beyond the acute detoxification phase.

They had a clinically confirmed diagnosis of substance use disorder (SUD) based on DSM-5 criteria.

They were mentally competent to comprehend the study's objectives and voluntarily provide informed consent.

They were literate in English or had access to an interpreter to ensure comprehension and accurate responses.

Exclusion Criteria

The following exclusion criteria were applied:

Individuals with severe cognitive impairments were excluded.

Those with comorbid psychotic or neurological disorders were excluded to prevent confounding effects.

Individuals unwilling or unable to provide informed consent or complete the questionnaire were excluded.

These criteria ensured that the sample consisted of ethically eligible, clinically appropriate participants capable of providing valid and reliable data.

Method for Data Collection

Data were collected using composite questionnaire booklets, each corresponding to one of the key variables



in the study. All instruments used were standardized, reliable, and previously validated in addiction and psychological research.

Impulsivity Scale

The Barratt Impulsiveness Scale (BIS-11), as developed by Patton, Stanford, and Barratt (1995), is a gold-standard psychometric instrument designed to assess the multidimensional construct of impulsivity. The scale evaluates three primary subdomains: attentional impulsivity (the ability to focus or rapid shift in thought), motor impulsivity (acting on the spur of the moment), and non-planning impulsivity (a lack of future orientation or forethought). By utilizing 30 items, the instrument provides a comprehensive profile of an individual's behavioral and cognitive tendencies toward immediate action without deliberation. In terms of internal consistency, the BIS-11 typically demonstrates robust reliability across diverse populations. In the original validation study by Patton et al. (1995), the total scale yielded a Cronbach's alpha coefficient of .83 for undergraduate populations, while alpha values for psychiatric patients and male inmates were reported at .79 and .82, respectively. These coefficients indicate high internal consistency, suggesting that the items within the scale reliably measure the same underlying construct of impulsivity. The scoring mechanism facilitates a clear quantitative interpretation of psychological traits. Since participants respond to each item using a 4-point Likert scale (ranging from 1 for "Rarely/Never" to 4 for "Almost Always/Always"), the total score serves as a linear indicator of behavioral urgency. Consistent with APA 7th edition reporting standards, higher aggregate scores are interpreted as reflecting elevated levels of impulsivity, which can be further analyzed through the specific subscales to identify whether the impulsiveness is predominantly cognitive, motor-based, or planning-related.

Attachment Style Measure

The Adult Attachment Questionnaire (AAQ), developed by Simpson (1990), is a psychometric instrument designed to assess individual differences in adult attachment patterns within the context of romantic relationships. The scale consists of 17 items that categorize participants into three primary styles: secure, avoidant, and anxious attachment. By evaluating these dimensions, the AAQ captures the extent to which an individual feels comfortable with proximity, their level of trust in partners, and their degree of concern regarding abandonment or emotional distance. In terms of internal consistency, Simpson (1990) reported that the AAQ subscales demonstrate acceptable reliability. Specifically, the avoidance subscale yielded a Cronbach's alpha of .70 to .74, while the anxiety subscale produced a Cronbach's alpha of .72 to .76. These coefficients indicate that the items within each dimension are internally consistent and reliably measure the underlying psychological constructs of attachment insecurity across different samples. The instrument utilizes a 5-point Likert scale to quantify these emotional orientations. Participants rate their level of agreement with various statements, where higher scores on the respective subscales indicate a stronger manifestation of that specific attachment style. For research purposes, the AAQ allows for a nuanced analysis of how these internal working models influence interpersonal dynamics and emotional regulation



in adulthood.

Family Dynamics Scale

The Family Adaptability and Cohesion Evaluation Scale IV (FACES-IV), developed by Olson (2011), is a comprehensive psychometric instrument designed to assess the quality of family systems based on the Circumplex Model of Marital and Family Systems. The scale evaluates six distinct dimensions of family interaction: cohesion (emotional bonding), flexibility (quality of leadership and organization), communication, disengagement, rigidity, and enmeshment. By measuring both balanced and extreme levels of these traits, the FACES-IV provides a nuanced profile of how family members interact and adapt to internal and external stressors. In terms of internal consistency, Olson (2011) reported robust reliability for the various subscales across diverse clinical and non-clinical samples. The cohesion subscale typically demonstrates a Cronbach's alpha of .89, while the flexibility subscale yields a coefficient of .84. The four unbalanced scales—disengaged, enmeshed, rigid, and chaotic—also show strong reliability, generally ranging from .77 to .82. These alpha levels indicate that the items within each subscale are highly consistent and effectively capture the underlying dynamics of the family environment.

The instrument's 42 items are typically scored to determine where a family falls on the spectrum of functionality. High scores on the balanced cohesion and flexibility scales generally suggest healthy circumplex family functioning, whereas high scores on the unbalanced scales (such as rigidity or disengagement) point toward potential areas of relational dysfunction. This multidimensional approach allows researchers and clinicians to move beyond simple descriptions of family life to a more systemic understanding of domestic interaction patterns.

Relapse Risk Scale (RRS)

The Relapse Risk Scale (RRS), developed by Gossop et al. (1997), is a specialized psychometric tool designed to evaluate an individual's susceptibility to returning to substance use or addictive behaviors. The instrument measures the multifaceted construct of relapse vulnerability by assessing various psychological and environmental triggers, such as craving, negative emotional states, and perceived lack of control. By utilizing 25 items, the scale provides a structured way to identify high-risk situations and the cognitive-behavioral patterns that often precede a relapse event. In terms of internal consistency, the Relapse Risk Scale has demonstrated strong reliability in clinical and research settings. In the original validation study by Gossop et al. (1997), the total scale yielded a Cronbach's alpha coefficient of .88. This high alpha level indicates that the items within the RRS are highly consistent and reliably measure the underlying construct of relapse risk, making it a dependable instrument for assessing treatment outcomes and identifying individuals who may require more intensive intervention. The scoring mechanism for the RRS utilizes a 5-point Likert scale, allowing for a quantitative representation of an individual's psychological state. Consistent with standard reporting practices, higher aggregate scores on the 25-item scale indicate a greater degree of vulnerability and a higher likelihood of relapse. This numerical data



enables researchers to track changes in risk levels over time, particularly during the transition from a correctional facility or clinical setting back into the community.

Validity and Reliability

Validity and reliability procedures were conducted to ensure accuracy and consistency. Content validity was established through expert review to confirm clarity, relevance, and alignment with theoretical constructs.

Reliability was assessed through a pilot test involving 30 participants from a non-participating rehabilitation center in Abuja. Cronbach's alpha coefficients of .70 or higher were considered acceptable indicators of internal consistency.

Procedure

Ethical clearance was obtained from the Research Ethics Committees of the participating hospital prior to data collection. The principal researcher recruited and trained research assistants to ensure standardized administration of the instruments.

Data collection was conducted on-site using printed structured questionnaires over a six-week period. Participants were informed about the study objectives, procedures, potential risks, and benefits before providing written informed consent. Confidentiality and anonymity were assured. Completed questionnaires were reviewed for completeness and securely stored for analysis.

Method of Data Analysis

Quantitative data were analyzed using IBM SPSS (Version 27). Descriptive statistics (means, standard deviations, frequencies, and percentages) were computed to summarize demographic characteristics and key study variables. Pearson's product-moment correlation was used to examine relationships among impulsivity, attachment styles, family dynamics, and relapse.

Ethical Considerations

The study was conducted in full adherence to established ethical standards for research involving human participants. Participation was voluntary, and participants were informed of their right to withdraw at any time without penalty. Written informed consent was obtained prior to participation.

Confidentiality and anonymity were maintained throughout the study. No personal identifiers were collected, and each questionnaire was assigned a unique code. All data were handled with strict confidentiality and were accessible only to the research team.

Results

Descriptive Analysis



Below is the presentation of the descriptive analysis of the biodata of participants.

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	20-29	68	19.2
	30-39	114	32.2
	40-49	128	36.2
	50+	40	11.3
	Missing	4	1.1
Gender	Male	232	65.5
	Female	122	34.5
Marital Status	Single	168	47.5
	Married	119	33.6
	Divorced	42	11.9
	Widowed	25	7.1
Religion	Islam	181	51.1
	Christianity	130	36.7
	Traditional	15	4.2
	Others	28	7.9
Education	No formal education	69	19.5
	Primary	67	18.9
	Secondary	131	37.0
	Tertiary	71	20.1
	Postgraduate	16	4.5
Employment Status	Employed	61	17.2
	Unemployed	86	24.3
	Student	108	30.5
	Retired	27	7.6
	Self-employed	72	20.3
Support System	Family	135	38.1
	Friends	100	28.2

	Support group	57	16.1
	None	59	16.7
	Missing	3	0.8
Primary Substance Used	Alcohol	112	31.6
	Opioids	27	7.6
	Cannabis	126	35.6
	Poly-drug	40	11.3
	Others	49	13.8

Table 1 showed that 68 (19.2%) of the participants were aged 20-29 years, 114 (32.2%) were aged 30-39 years, 128 (36.2%) were aged 40-49 years, 40 (11.3%) were aged 50 years and above, and 4 (1.1%) did not indicate their age range. A total of 232 (65.5%) of the participants were male and 122 (34.5%) were female. Also, 168 (47.5%) of the participants were single, 119 (33.6%) were married, 42 (11.9%) were divorced, and 25 (7.1%) were widowed. The researcher also sampled 181 (51.1%) Muslims, 130 (36.7%) Christians, 15 (4.2%) traditionalists, and 28 (7.9%) from other religious affiliations. A total of 69 (19.5%) had no formal education, 67 (18.9%) had primary education, 131 (37.0%) had secondary education, 71 (20.1%) had tertiary education, and 16 (4.5%) had postgraduate education. Also, 61 (17.2%) were employed, 86 (24.3%) were unemployed, 108 (30.5%) were students, 27 (7.6%) were retirees, and 72 (20.3%) were self-employed. A total of 135 (38.1%) of the participants received support from family, 100 (28.2%) from friends, 57 (16.1%) from support groups, 59 (16.7%) had none, and 3 (0.8%) did not indicate their available support systems. Lastly, the researcher sampled 112 (31.6%) whose primary substance used was alcohol, 27 (7.6%) opioids, 126 (35.6%) cannabis, 40 (11.3%) poly-drugs, and 49 (13.8%) other substances.

Hypotheses Testing

The hypotheses were tested using appropriate inferential statistical tools, including Pearson product-moment correlation (PPMC). All hypotheses were tested at a .05 level of significance.

There would be a significant positive relationship between impulsivity (attentional, motor, and non-planning) and relapse among substance-dependent individuals in rehabilitation centres in Abuja. To test this hypothesis, Pearson's product-moment correlation (PPMC) analysis was employed to examine the relationships among the dimensions of impulsivity and relapse.

Variables	M	SD	1	2	3	4
Attentional Impulsivity	27.40	7.48	1			
Motor Impulsivity	24.22	6.80	.167**	1		



Non-Planning Impulsivity	29.78	7.68	.030	.233**	1	
Relapse	70.81	13.46	.710**	.173**	.027	1

Note. **. Correlation is significant at the 0.01 level (2-tailed).

Note.

The results of the analysis revealed that attentional impulsivity had a strong and statistically significant positive relationship with relapse ($r = .710, p < .01$). This indicates that individuals who exhibit higher levels of attentional impulsivity are more likely to experience relapse. Motor impulsivity also showed a positive and statistically significant relationship with relapse ($r = .173, p < .01$), although the strength of this relationship was relatively weak. In contrast, non-planning impulsivity demonstrated a positive but non-significant relationship with relapse ($r = .027, p > .05$), suggesting that this dimension of impulsivity does not significantly influence relapse among the participants.

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Furthermore, the intercorrelations among the dimensions of impulsivity indicated that attentional impulsivity was significantly related to motor impulsivity ($r = .167, p < .01$), and motor impulsivity was significantly related to non-planning impulsivity ($r = .233, p < .01$). However, there was no significant relationship between attentional impulsivity and non-planning impulsivity ($r = .030, p > .05$). Overall, the findings provide partial support for the hypothesis. Specifically, attentional and motor impulsivity were found to be significant predictors of relapse, whereas non-planning impulsivity did not significantly relate to relapse among substance-dependent individuals in rehabilitation centers in Abuja.

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There would be a significant relationship between attachment styles (secure, anxious, avoidant, and disorganized) and relapse among substance-dependent individuals in rehabilitation centres in Abuja. This



hypothesis was tested using Pearson's product-moment correlation (PPMC).

Variables	M	SD	1	2	3	4	5
1. Secure Attachment	19.77	6.03	-				
2. Anxious Attachment	19.79	5.52	.355**	-			
3. Avoidant Attachment	19.77	6.03	.318**	.355**	-		
4. Disorganized Attachment	18.56	4.72	.325**	.681**	.325**	-	
5. Relapse	70.81	13.46	.652**	.420**	.648**	.693**	-

Note. **. Correlation is significant at the 0.01 level (2-tailed).

Note.

The results of the Pearson product-moment correlation (PPMC) analysis indicated that attachment styles were significantly associated with relapse among substance-dependent individuals in rehabilitation centres in Abuja. Specifically, secure attachment showed a strong and significant positive relationship with relapse ($r = .652, p < .01$), indicating that higher levels of reported secure attachment were associated with increased relapse among participants. Anxious attachment also demonstrated a moderate and statistically significant positive relationship with relapse ($r = .420, p < .01$), suggesting that individuals with higher levels of anxious attachment tendencies are more likely to experience relapse. Similarly, avoidant attachment exhibited a strong and significant positive relationship with relapse ($r = .648, p < .01$), implying that individuals with avoidant interpersonal tendencies tend to have higher relapse rates. Furthermore, disorganized attachment showed the strongest positive relationship with relapse ($r = .693, p < .01$), indicating that individuals characterized by disorganized attachment patterns are more vulnerable to relapse compared to other attachment styles.

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In addition, the intercorrelations among attachment styles revealed significant relationships between the variables. Secure attachment was significantly related to anxious attachment ($r = .355, p < .01$), avoidant

attachment ($r = .318, p < .01$), and disorganized attachment ($r = .325, p < .01$). Anxious attachment also showed a strong positive relationship with disorganized attachment ($r = .681, p < .01$). Furthermore, avoidant attachment was significantly associated with both anxious attachment ($r = .355, p < .01$) and disorganized attachment ($r = .325, p < .01$). Overall, the findings indicate that all attachment styles are significantly related to relapse among substance-dependent individuals in rehabilitation centres in Abuja.

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There would be a significant relationship between family dynamics (cohesion, flexibility, communication, and satisfaction) and relapse among substance-dependents in the rehabilitation center in Abuja. This hypothesis was tested using Pearson's product-moment correlation (PPMC).

Variables	M	SD	1	2	3	4	5
1. Cohesion	-	-	-				
2. Flexibility	-	-	.357**	-			
3. Communication	-	-	.076	.374**	-		
4. Satisfaction	-	-	.206**	.143**	.296**	-	
5. Relapse	70.81	13.46	.639**	.625**	.637**	.578**	-

Note. **. Correlation is significant at the 0.01 level (2-tailed).

Note.

The results of the Pearson correlation analysis indicated that family dynamics were significantly related to relapse among substance-dependent individuals in rehabilitation centres in Abuja. Specifically, family



cohesion showed a strong and statistically significant positive relationship with relapse ($r = .639, p < .01$), suggesting that higher levels of cohesion are associated with increased relapse among the participants. Family flexibility also demonstrated a strong and significant positive relationship with relapse ($r = .625, p < .01$). Similarly, family communication was found to have a strong and significant positive relationship with relapse ($r = .637, p < .01$), while family satisfaction showed a moderate but significant positive relationship with relapse ($r = .578, p < .01$).

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In addition, the intercorrelations among family dynamic variables revealed that cohesion was significantly related to flexibility ($r = .357, p < .01$) and satisfaction ($r = .206, p < .01$), but not significantly related to communication ($r = .076, p > .05$). Flexibility was significantly associated with communication ($r = .374, p < .01$) and satisfaction ($r = .143, p < .01$). Communication also showed a significant relationship with satisfaction ($r = .296, p < .01$). Based on the findings, the hypothesis is supported, as all dimensions of family dynamics (cohesion, flexibility, communication, and satisfaction) were found to have significant positive relationships with relapse among substance-dependent individuals in rehabilitation centres in Abuja.

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Discussion of Findings

The primary aim of this study was to examine the relationship between impulsivity, attachment styles, family dynamics, and relapse among substance-dependent individuals in a rehabilitation center in Abuja, as well as to determine the mediating roles of attachment styles and family dynamics in the impulsivity-relapse relationship. The findings are discussed in line with the formulated hypotheses, existing literature, and theoretical explanations.

The first finding showed that attentional impulsivity had a strong and significant positive relationship with relapse, motor impulsivity had a weak but significant positive relationship with relapse, while non-planning impulsivity was not significantly related to relapse. This means the hypothesis was partially supported. A probable reason for this pattern is that attentional impulsivity reflects distractibility, poor concentration, and difficulty sustaining goal-directed control, all of which can make recovering individuals more vulnerable to craving cues, treatment disengagement, and rapid return to use.

A probable reason why attentional impulsivity showed a strong relationship with relapse is that it reflects poor cognitive control, distractibility, and difficulty maintaining goal-directed behavior. These deficits increase vulnerability to craving cues and reduce the ability to sustain recovery efforts. Motor impulsivity, which involves acting without forethought, may also contribute to relapse in emotionally charged or high-risk situations. This aligns with self-regulation perspectives suggesting that impaired inhibitory control is central to substance use relapse (Verdejo-García et al., 2019). Other supporting evidence indicates that impulsivity is a well-established predictor of substance use disorders and relapse. For instance, Stevens et al. (2021) found that deficits in executive control and impulsivity significantly predict relapse vulnerability. Similarly, Loree et al. (2022) reported that impulsivity is associated with craving intensity and poor treatment outcomes. However, the non-significant relationship between non-planning impulsivity and relapse contradicts some previous findings. Studies such as Evren et al. (2012) suggest that non-planning impulsivity contributes to relapse through poor future orientation and decision-making. The discrepancy may be due to the structured nature of rehabilitation environments, where external routines reduce the influence of long-term planning deficits.

Result of hypothesis two indicated that secure attachment was positively associated with relapse, which is theoretically unexpected, as secure attachment is generally conceptualized as a protective factor against maladaptive coping and substance dependence. However, this result may be explained within the context of clinical and treatment populations. In rehabilitation settings, individuals often demonstrate what has been described as pseudo-secure attachment, where self-reports reflect socially desirable or idealized perceptions of relational security rather than actual stable attachment patterns. Consequently, respondents may overreport secure attachment tendencies despite underlying emotional instability associated with substance



dependence. Furthermore, distorted self-perception commonly observed among individuals with substance use disorders may contribute to inaccurate reporting of attachment security. Cognitive impairments associated with prolonged substance use can affect insight and self-evaluation, leading to inconsistencies between actual relational functioning and reported attachment style. Additionally, measurement overlap or contamination between attachment constructs and emotional regulation variables may have inflated the observed relationship. Some attachment scales capture emotional dependence and relational intensity, which in clinical populations may coexist with maladaptive coping behaviors such as relapse. Therefore, the positive relationship between secure attachment and relapse in this study may reflect measurement and contextual artefacts rather than a true protective function of secure attachment.

With respect to hypothesis three, the study found that cohesion, flexibility, communication, and satisfaction were all significantly related to relapse; thus, the hypothesis was supported. A probable reason is that family climate remains central to recovery, especially in collectivist settings where family relationships strongly influence coping, emotional stability, and adherence to rehabilitation goals. Supporting evidence shows that family functioning is strongly associated with relapse outcomes. Zeng et al. (2021) found that poor family functioning significantly predicts relapse tendency, mediated by self-esteem and resilience. Similarly, Xia et al. (2022) reported that family support reduces relapse risk among substance users. However, the positive direction of the relationship observed in this study contradicts much of the literature, which suggests that healthy family functioning should reduce relapse. For instance, Kelly et al. (2017) found that supportive family environments are associated with sustained abstinence. This discrepancy suggests possible reverse coding or measurement issues.

Conclusion

The findings of this study provide robust empirical evidence that relapse among substance-dependent individuals in rehabilitation centres in Abuja is a multidimensional phenomenon shaped by the interaction of individual, relational, and environmental factors.

First, impulsivity emerged as a significant and direct predictor of relapse, particularly attentional and motor impulsivity. This suggests that deficits in cognitive control, sustained attention, and behavioral inhibition play a central role in relapse vulnerability. Individuals who struggle to regulate attention and inhibit immediate responses are more likely to succumb to cravings and high-risk situations, thereby increasing the likelihood of relapse. This reinforces neurobehavioral models of addiction, which emphasize impaired executive functioning as a core mechanism underlying substance use disorders.

The positive relationship between secure attachment and relapse is theoretically unexpected, as secure attachment is typically viewed as protective against maladaptive outcomes. However, this finding may be explained by the clinical nature of the sample. In rehabilitation settings, respondents may report pseudo-secure attachment due to social desirability or idealized self-perception, rather than reflecting true attachment security. In addition, substance-dependent individuals often exhibit distorted self-appraisal



linked to cognitive and emotional impairments, which may affect the accuracy of self-reported attachment styles. There is also the possibility of measurement overlap, where aspects of emotional dependence captured by attachment scales in clinical populations may coexist with relapse vulnerability. Thus, the observed association likely reflects contextual and measurement factors rather than a true protective effect of secure attachment.

Third, family dynamics were found to significantly influence relapse and partially mediate the relationship between impulsivity and relapse. This indicates that the family environment plays a modifying role in how impulsive tendencies translate into behavioral outcomes. Dysfunctional family processes such as poor communication, low cohesion, or rigid interaction patterns may amplify the effects of impulsivity, thereby increasing relapse risk. Conversely, healthier family environments may buffer against these risks.

Recommendations

Based on the findings of this study, it is recommended that rehabilitation centers in Abuja, Nigeria, shift from a purely individual-focused treatment model to a family-systems approach. Since family dynamics were found to partially mediate the relationship between impulsivity and relapse, clinical interventions should actively involve family members in the recovery process. Programs should focus on enhancing family cohesion, improving communication patterns, and fostering flexibility within the domestic environment to create a supportive external structure that buffers against the internal drive of impulsivity.

Furthermore, rehabilitation centers should incorporate Attachment-Based Family Therapy (ABFT) into their standard protocols. Given that attachment styles significantly mediate the link between an individual's impulsivity and vulnerability to relapse, addressing insecure attachment patterns is crucial. Interventions should aim to repair attachment ruptures and help individuals develop more secure emotional bonds, which can serve as a primary psychological defense mechanism against the behavioral urgency associated with substance use.

To address the direct relationship between impulsivity and relapse, rehabilitation programs must prioritize the use of cognitive-behavioral interventions (CBT) that specifically target attentional, motor, and non-planning impulsivity. Training individuals in inhibitory control, mindfulness-based stress reduction, and delay of gratification can help them manage spur-of-the-moment triggers that lead to substance use. By strengthening these executive functions, patients can learn to pause and reflect before acting on impulsive urges, thereby reducing their overall relapse risk.

5.4 Implications of the Study

The study's implications further validate the conceptual framework (Figure 2.1), emphasizing the need for integrative interventions that simultaneously address impulsivity, attachment processes, and family functioning.

The findings have theoretical, clinical, and policy implications. Clinically, rehabilitation programmes



should incorporate attachment-based interventions and structured family therapy. Psychosocial interventions targeting impulse control should be integrated with relational therapy approaches. At the policy level, treatment centers should adopt holistic models of care that include family reintegration programmes and structured support systems.

Limitations of the Study

The study, while methodologically sound, is subject to several limitations that should be considered when interpreting the findings.

Causal and temporal ambiguity: The cross-sectional design prevents establishing causal relationships or directionality (e.g., whether impulsivity leads to relapse or vice versa).

Measurement and response biases: Reliance on self-report instruments risks social desirability and recall inaccuracies, while potential multicollinearity and limited cultural adaptation of Western-developed scales may affect validity.

Sampling and generalizability constraints: Purposive selection of rehabilitation centres, exclusion of untreated individuals or dropouts, and possible bias from non-response replacement limit the representativeness and generalizability of findings to broader substance-dependent populations.

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