



SEXUAL REGRET IN EMERGING ADULTHOOD: FAMILIAL AND PSYCHOLOGICAL PREDICTORS AMONG NIGERIAN TERTIARY STUDENTS

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Abstract:

Sexual regret has emerged as a meaningful indicator of psychosocial adjustment during emerging adulthood because it reflects how past sexual experiences are evaluated in relation to personal values, identity development, and relationship expectations. Despite growing international interest in the construct, little is known about its developmental and psychological correlates in sub-Saharan Africa. Guided by Emerging Adulthood Theory, this study examined the relationships among parent–adolescent relationship quality, religiosity, adverse childhood experiences (ACEs), impulsivity, depression, life values, and sexual regret among emerging adults in Nigerian tertiary institutions. Using a cross-sectional survey design, 360 sexually experienced emerging adults (192 males, 168 females; $M = 21.09$ years, $SD = 3.57$) completed standardized measures of the study variables. Pearson correlations, hierarchical multiple regression, and hierarchical moderated regression analyses were conducted. Sexual regret was positively associated with impulsivity and negatively associated with ACEs. Hierarchical regression showed that proximal psychological characteristics explained significant additional variance in sexual regret beyond distal developmental and familial influences ($\Delta R^2 = .042$, $p = .001$). In the final model, impulsivity positively predicted sexual regret, whereas ACEs negatively predicted sexual regret. Parent–adolescent relationship quality, religiosity, depression, and life values were not significant independent predictors, and gender did not moderate the relationships between ACEs, impulsivity, and sexual regret. The findings suggest that sexual regret is shaped by both distal developmental and familial influences and proximal psychological characteristics during emerging adulthood. The inverse association between ACEs and sexual regret is consistent with theoretical accounts proposing altered emotional processing following childhood adversity, although this mechanism requires direct empirical investigation. The findings highlight

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the potential value of trauma-informed sexual health education and self-regulation-focused interventions within university counselling and campus health services.

Keywords: sexual regret; emerging adulthood; adverse childhood experience; impulsivity; Nigeria

1. Introduction

Emerging adulthood (approximately 18–30 years) represents a distinct developmental period characterised by identity exploration, increasing autonomy, experimentation, and life instability (Arnett, 2000). During this period, young people experience unprecedented freedom in making decisions about education, work, relationships, and sexuality, often without direct parental supervision. Sexual experiences become increasingly common and serve not only biological or relational functions but also contribute to identity development and psychosocial adjustment. Consequently, the emotional consequences of sexual decision-making assume considerable developmental significance.

Sexual regret is defined as a negative emotional response, including feelings of guilt, shame, disappointment, or remorse, following reflection on previous sexual experiences (Oswalt *et al.*, 2005). Although often examined within the broader literature on sexual risk-taking, sexual regret is increasingly recognised as an important psychological outcome because it reflects the extent to which sexual behaviour aligns with personal values, relationship expectations, and identity goals. Experiences of sexual regret have been associated with depression, anxiety, reduced life satisfaction, and poorer psychological adjustment (Bersamin *et al.*, 2014; Grello *et al.*, 2006). Beyond these associations, sexual regret may signal discrepancies between behaviour and the developing self-concept, making it a potentially valuable indicator of psychosocial adaptation during emerging adulthood. Examining the factors associated with sexual regret may therefore provide insight into broader developmental processes through which young adults evaluate and integrate sexual experiences into their evolving identities.

Recent research has increasingly conceptualised sexual regret as one of several emotional outcomes associated with sexual decision-making during emerging adulthood. Rather than viewing regret as an inevitable consequence of risky sexual behaviour, contemporary studies suggest that emotional reactions to sexual experiences depend on the extent to which those experiences are consistent with an individual's values, expectations, relationship goals, and sense of self (Galperin *et al.*, 2013; Kennair *et al.*, 2016; Vrangalova & Ong, 2014). Research on hookup regret and casual sexual relationships similarly demonstrates considerable variability in emotional outcomes, with some individuals reporting satisfaction, personal growth, or enhanced relationship insight, whereas others experience guilt, disappointment, regret, or psychological distress (Vrangalova, 2014). Collectively, these findings suggest that developmental,

relational, and psychological factors, rather than sexual behaviour alone, shape how emerging adults evaluate their sexual experiences.

Although African research has substantially advanced understanding of adolescent and emerging adult sexual behaviour, the literature has remained dominated by public health concerns such as HIV prevention, contraceptive use, sexually transmitted infections, and unintended pregnancy (Bain *et al.*, 2021; Mmari & Sabherwal, 2013). Comparatively little attention has been devoted to understanding how young adults emotionally evaluate their sexual experiences or how developmental and psychological factors shape these evaluations. Consequently, the experience of sexual regret remains poorly understood within African settings despite its potential relevance for psychosocial adjustment and sexual well-being.

Nigeria presents a particularly important context in which to investigate these issues. The majority of tertiary institution students fall within the emerging adulthood period and frequently experience independent living and autonomous sexual decision-making for the first time. Yet these experiences occur within a broader society that continues to emphasise conservative religious and familial norms regarding sexuality (Esiet, 2003; Onipede, 2011). The coexistence of increasing sexual autonomy with enduring cultural expectations may create distinctive emotional responses to sexual experiences. Despite extensive Nigerian research on sexual behaviour and its public health consequences, including sexually transmitted infections, unintended pregnancy, and contraceptive use, comparatively little attention has been devoted to understanding the emotional consequences of sexual experiences or the developmental factors that shape sexual regret.

Despite growing international interest in sexual regret, significant gaps remain in understanding its developmental antecedents, particularly within African contexts. Existing research has largely focused on the behavioural consequences of childhood adversity and impulsivity or on sexual health outcomes, with limited attention to how distal developmental and familial influences, together with proximal psychological characteristics, shape the emotional evaluation of sexual experiences. Consequently, it remains unclear how familial experiences and individual psychological factors jointly influence sexual regret among emerging adults in socio-cultural contexts such as Nigeria. The present study addresses these gaps by examining six theoretically grounded familial and psychological predictors of sexual regret among Nigerian tertiary students: parent-adolescent relationship quality, religiosity, adverse childhood experiences, impulsivity, depression, and life values. By integrating developmental, familial, and psychological perspectives within the framework of Emerging Adulthood Theory, the study extends current understanding of the emotional consequences of sexual decision-making in an underrepresented cultural context. In particular, it investigates whether childhood adversity influences not only vulnerability to sexual risk but also the emotional evaluation of sexual experiences, thereby providing a more nuanced account of how distal developmental and familial influences, together with proximal psychological characteristics, shape sexual well-being during emerging adulthood.

2. Emerging Adulthood and Sexual Regret

The present study is grounded in Arnett's (2000) Theory of Emerging Adulthood, which conceptualises the period between approximately 18 and 29 years as a distinct developmental stage characterised by identity exploration, increasing autonomy, experimentation, and life instability. These developmental features provide a useful framework for understanding sexual regret because they shape both opportunities for sexual decision-making and the ways in which those decisions are subsequently evaluated.

As emerging adults assume greater responsibility for their relationships and sexual choices, they increasingly rely on their own values, goals, and self-concept rather than parental guidance. The developmental tasks of identity exploration and experimentation create opportunities to explore intimate relationships while simultaneously increasing the likelihood of decisions that may later be reassessed in light of evolving personal standards and future aspirations. Consequently, sexual regret may be understood as an emotional response that reflects the extent to which past sexual experiences are perceived to be congruent or incongruent with an individual's developing identity and broader life goals.

The theory further suggests that developmental and familial experiences accumulated across the life course may influence how emerging adults negotiate these challenges. Familial experiences such as adverse childhood experiences and parent-adolescent relationship quality may shape emotional development and interpersonal functioning before the transition to adulthood, whereas individual characteristics such as impulsivity, depression, religiosity, and life values may influence how sexual decisions are made and subsequently appraised. Emerging Adulthood Theory, therefore, provides an integrative developmental framework for examining how both distal developmental and familial influences and proximal psychological characteristics contribute to sexual regret among Nigerian emerging adults.

3. Sexual Regret and Adverse Childhood Experience

Adverse childhood experiences, encompassing physical, sexual, and emotional abuse as well as household dysfunction and neglect (Pekarsky, 2018; Weber *et al.*, 2016) have been consistently linked to high-risk sexual behaviour in adolescence and adulthood (Wang & Ming, 2019). Exposure to early adversity is thought to disrupt normative emotional development through several mechanisms, including dysregulation of the stress-response system, impaired attachment formation, and the erosion of self-worth (Riem *et al.*, 2015). However, the relationship between childhood maltreatment and sexual regret as distinct from sexual risk behaviour has received substantially less attention and may operate through mechanisms that differ from those underlying sexual risk behaviour.

A plausible mechanism underlying this association is altered emotional processing following childhood adversity. Evidence from the emotional numbing and

alexithymia literature suggests that chronic early adversity may be associated with blunted affective experience, reduced emotional awareness, and difficulty identifying or articulating self-conscious emotions such as guilt, shame, and regret (Taylor *et al.*, 1997). Individuals with high ACE exposure may therefore differ in the extent to which sexual experiences are emotionally appraised, integrated into self-evaluation, and subsequently experienced as regret. This proposition is consistent with evidence linking childhood maltreatment to altered emotional functioning and neurobiological differences in affective processing systems (Riem *et al.*, 2015). Although these processes represent theoretically plausible mechanisms through which childhood adversity may influence sexual regret, they require direct empirical examination.

4. Impulsivity and Sexual Regret

Impulsivity, which is broadly defined as a tendency toward unplanned, rapid action with insufficient consideration of consequences (Whiteside & Lynam, 2001), is a well-established predictor of risky sexual behaviour in emerging adulthood (Lejuez *et al.*, 2005; Kahn *et al.*, 2002). The UPPS-P model (Whiteside & Lynam, 2001, 2003) delineates distinct impulsivity dimensions, including negative urgency (acting rashly under negative affect), lack of premeditation, lack of perseverance, sensation seeking, and positive urgency. Emerging adulthood, characterised by neurological incompleteness of prefrontal inhibitory systems and social freedom from parental oversight, represents a period of elevated impulsivity expression (Arnett, 2015; Baiocco *et al.*, 2008). Impulsive sexual decisions, particularly those made under conditions of arousal or social pressure, are likely to be assessed more negatively in retrospect, when the inhibitory systems that were bypassed during the act are fully engaged. This prospective-retrospective mismatch is a theorised core mechanism linking impulsivity to sexual regret.

5. Further Predictors: Parent-Adolescent Relationship, Religiosity, Depression, and Values

Positive parent-adolescent relationship quality has been associated with delayed sexual debut, reduced sexual risk-taking, and more conservative sexual attitudes (Biddlecom *et al.*, 2009; Graf, 2011). However, the relationship between parental bonding and sexual regret specifically in emerging adulthood may be attenuated relative to adolescence, as parental influence on sexual decision-making recedes with increasing autonomy (DeGraaf *et al.*, 2011; Walper & Wendt, 2015). Religiosity has been hypothesised to both reduce sexual activity through internalised moral norms and to intensify regret when transgressions occur (Lefkowitz *et al.*, 2004; Quinn & Lewin, 2019). Whether the net effect on regret is positive or negative depends on the relative strength of behavioural inhibition versus post-hoc moral self-evaluation. Depression has been positioned as a potential bidirectional associate of sexual regret, with some evidence suggesting that depressive affect precipitates risky sexual behaviour and that the resulting regret further deepens

depressive symptoms (Hallfors *et al.*, 2006; Yaroslavsky, 2013). Finally, life values, particularly values governing sexual purity and relationship commitment, are expected to amplify regret when behaviour is perceived as incongruent with those values (Oyserman, 2015; Schwartz *et al.*, 2001).

6. Gender and Sexual Regret

Research has consistently documented gender differences in the experience and expression of sexual regret. Evolutionary and sociocultural perspectives suggest that men and women may evaluate sexual experiences differently due to differences in reproductive concerns, social expectations, and sexual scripts.

Galperin *et al.* (2013) reported that women were more likely than men to experience regret following casual sexual encounters, whereas men were more likely to regret missed sexual opportunities. Similarly, Kennair *et al.* (2016) found that women reported greater regret after engaging in short-term sexual relationships, while men more frequently expressed regret about not taking advantage of sexual opportunities. These differences have been attributed to variations in perceived social consequences, emotional investment in sexual relationships, concerns about reputation, and differential socialisation regarding sexual behaviour.

Beyond mean differences, gender may also shape the extent to which psychological characteristics influence sexual regret. For example, impulsivity may lead to different emotional consequences for males and females because sexual decisions often occur within distinct social and cultural contexts. Likewise, childhood adversity may influence emotional processing and sexual decision-making differently across genders. Consequently, it is important not only to examine gender differences in sexual regret but also to determine whether gender alters the relationships between key predictors and sexual regret.

Given established sex differences in sexual regret, gender was explored as a potential moderator of the relationships between adverse childhood experiences, impulsivity, and sexual regret.

7. Study Aims and Hypotheses

Drawing on Emerging Adulthood Theory (Arnett, 2000), the present study examined familial and psychological correlates of sexual regret among emerging adults in Nigerian tertiary institutions. Specifically, the study investigated the relationships between parent-adolescent relationship quality, religiosity, adverse childhood experiences (ACEs), impulsivity, depression, life values, and sexual regret, and examined the extent to which these variables jointly and independently predicted sexual regret.

Gender was also examined as a potential moderator because previous literature suggests that men and women differ in the experience and evaluation of sexual regret (Galperin *et al.*, 2013; Kennair *et al.*, 2016), raising the possibility that the influence of both

distal developmental and familial factors and proximal psychological characteristics on sexual regret may also vary by gender.

Accordingly, it was hypothesised that adverse childhood experiences and impulsivity would be significantly associated with sexual regret, and that the familial and psychological variables would jointly account for significant variance in sexual regret. Based on this literature, it was expected that gender would moderate the relationships between adverse childhood experiences and sexual regret, and between impulsivity and sexual regret. However, because existing theory and empirical evidence do not clearly indicate the direction of these moderating effects, no directional hypotheses were advanced.

8. Method

8.1 Research Design

A cross-sectional survey design of the descriptive-correlational type was employed. This design is appropriate for simultaneously examining the direction and strength of associations between multiple predictor variables and a criterion variable without experimental manipulation.

8.2 Participants and Sampling Procedure

The target population comprised sexually experienced emerging adults enrolled in tertiary institutions in Oyo State, Nigeria. A multistage sampling procedure was employed. In the first stage, three tertiary institutions representing different educational sectors were selected: the University of Ibadan (federal university), Ajayi Crowther University, Oyo (private university), and The Polytechnic, Ibadan (polytechnic institution). In the second stage, faculties and departments within each institution were randomly selected. Subsequently, students within the selected departments were approached and screened for eligibility.

A total of 200 students were approached in each institution. Eligibility criteria required that participants (a) were currently enrolled in the institution, (b) fell within the emerging adulthood age range, operationalised as approximately 18 to 29 years (Arnett, 2000), and (c) reported having had previous sexual experience. One participant aged 30 years was retained in the sample because the age exceeded the upper limit by only one year and did not meaningfully alter the developmental composition of the sample. Sexual experience was assessed through a screening question administered prior to completion of the study measures. Only students who reported previous sexual experience were retained for participation, as such experience was considered necessary for meaningful completion of the Sexual Regret Scale. Students who reported no prior sexual experience were excluded from the study.

Following the screening process, eligible students who were available and provided informed consent were consecutively recruited until the target sample of 120

participants per institution was attained. This resulted in a final sample of 360 participants.

The sample comprised 192 males (53.3%) and 168 females (46.7%), with a mean age of 21.09 years ($SD = 3.57$). Participants ranged in age from 18 to 30 years. The majority identified as Christian ($n = 304$, 84.4%), followed by Muslim ($n = 52$, 14.4%) and Traditional religion practitioners ($n = 4$, 1.1%). Most participants reported coming from nuclear family backgrounds ($n = 324$, 90.0%) and residing primarily with their parents ($n = 316$, 87.8%).

8.3 Instruments

8.3.1 Sexual Regret Scale (SRS; Oswalt *et al.*, 2005)

The SRS is a self-report measure designed to assess regret associated with previous sexual experiences. The scale consists of 10 items assessing the frequency and intensity of negative emotional reactions such as guilt, disappointment, and remorse following sexual encounters. Items are rated on a 4-point Likert scale ranging from 1 (Never) to 4 (Always). Total scores range from 10 to 40, with higher scores indicating greater sexual regret. The scale demonstrated excellent internal consistency in the present study ($\alpha = .921$).

8.3.2 Brief Measure of Parent–Adolescent Relationship Quality

Parent–adolescent relationship was assessed using a brief five-item measure of adolescents' perceptions of their relationships with their parents. The items assessed key behavioural aspects of parent–adolescent interactions, including parental praise, support, criticism, blame, and reliability. Participants responded on a three-point scale ranging from Sometimes to Frequently and Always. Negatively worded items were reverse-scored so that higher scores reflected more positive perceived parent–adolescent relationship quality. Internal consistency in the present sample was modest (Cronbach's $\alpha = .47$). Therefore, findings involving this variable should be interpreted with caution.

8.3.3 Centrality of Religiosity Scale (Huber & Huber, 2012)

The CRS measures the extent to which religious beliefs, experiences, and practices occupy a central position in an individual's life. The 15-item version assesses five dimensions of religiosity: intellectual interest, ideological belief, public religious practice, private religious practice, and religious experience. Responses are recorded on Likert-type scales, with higher scores indicating greater religious centrality. The CRS demonstrated excellent reliability in the current study ($\alpha = .918$).

8.3.4 Adverse Childhood Experiences International Questionnaire (ACE-IQ; World Health Organization, 2018)

The ACE-IQ assesses exposure to adverse experiences before the age of 18 years. The instrument covers multiple domains, including emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect, household dysfunction, peer violence, and

exposure to community violence. The version used in this study contained 16 items rated on a 5-point frequency scale. Higher scores indicate greater exposure to childhood adversity. Internal consistency in the present sample was excellent ($\alpha = .927$).

8.3.5 UPPS-P Impulsive Behaviour Scale (Whiteside & Lynam, 2001; Whiteside & Lynam, 2003)

The UPPS-P assesses multidimensional impulsivity and comprises five facets: negative urgency, lack of premeditation, lack of perseverance, sensation seeking, and positive urgency. The scale used in the present study contained 20 items rated on a 4-point Likert scale ranging from strong disagreement to strong agreement. Higher scores indicate higher levels of impulsive behaviour. A total impulsivity score was computed for analysis. The scale demonstrated good internal consistency in the present sample ($\alpha = .858$).

8.3.6 Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977)

The CES-D is a widely used measure of depressive symptomatology in community and non-clinical populations. The scale contains 20 items assessing depressive symptoms experienced during the previous week, including sadness, hopelessness, sleep difficulties, and loss of interest. Responses are rated on a 4-point scale reflecting symptom frequency. Higher scores indicate greater depressive symptom severity. The scale demonstrated good internal consistency in the present study ($\alpha = .837$).

8.3.7 Life Values Inventory (LVI; Brown & Crace, 1996)

The LVI assesses the relative importance individuals place on core life values that guide decision-making and behaviour. The instrument consists of 42 items measuring values across several domains, including achievement, concern for others, creativity, spirituality, responsibility, and personal fulfilment. Items are rated on a 3-point response scale, with higher scores reflecting stronger endorsement of personally important values. The scale demonstrated excellent reliability in the present sample ($\alpha = .946$).

For all instruments, higher scores reflected higher levels of the measured construct. Internal consistency estimates (Cronbach's α) ranged from .472 to .946. All instruments demonstrated good to excellent reliability except the brief parent–adolescent relationship measure, which showed relatively low internal consistency and should therefore be interpreted with caution.

8.4 Procedure

Institutional ethical approval was obtained from the University of Ibadan Social Sciences and Humanities Research Ethics Committee prior to data collection. Trained research assistants administered questionnaire batteries in person at each institution. Participants were fully briefed on the study's purpose, their right to withdraw, and the confidentiality of responses. Written informed consent was obtained from all participants. Data

collection was completed over seven days, and all questionnaires were retrieved immediately upon completion to minimise response loss.

8.5 Data Analysis

Data were analysed using IBM SPSS Statistics (Version 25). Descriptive statistics (means, standard deviations, frequencies, and percentages) were computed to summarise participants' demographic characteristics and study variables. Pearson product-moment correlation analyses were conducted to examine bivariate associations among the study variables. Hierarchical multiple regression analysis was then performed to examine the predictive influence of the independent variables on sexual regret. Guided by Emerging Adulthood Theory, parent–adolescent relationship, religiosity, and adverse childhood experiences were entered in Model 1 to represent relatively distal developmental and familial influences, whereas impulsivity, depression, and life values were entered in Model 2 to examine whether proximal psychological characteristics explained additional variance in sexual regret. Changes in explained variance (ΔR^2) were examined to evaluate the incremental contribution of the second block of predictors. Multicollinearity was assessed using variance inflation factors (VIFs). Finally, two hierarchical moderated regression analyses were conducted to examine whether gender moderated the relationships between adverse childhood experiences and sexual regret, and between impulsivity and sexual regret. For each analysis, the mean-centred predictor and gender were entered at Step 1, followed by the interaction term at Step 2. Statistical significance was evaluated at $\alpha = .05$.

9. Results

9.1 Preliminary Analyses: Descriptive Statistics

Table 1 presents means, standard deviations, and observed score ranges for all study variables. Sexual regret scores ($M = 18.81$, $SD = 7.82$) were approximately normally distributed (skewness = 0.67, kurtosis = -0.30), supporting the assumptions of parametric inference. Table 2 presents the full correlation matrix, including inter-predictor correlations. All VIFs were below 2.0 (range: 1.12–1.74), confirming the absence of multicollinearity.

Table 1: Descriptive Statistics for All Study Variables (N = 360)

Variable	M	SD	Min	Max	A
1. Sexual Regret	18.81	7.82	10	40	.921
2. Parent-Adolescent Relationship measure	11.38	2.22	5	15	.472
3. Religiosity	53.82	14.04	15	75	.918
4. Adverse Childhood Experience	57.23	15.84	16	79	.927
5. Impulsivity (UPPS-P)	53.62	10.98	20	80	.858
6. Depression (CES-D)	41.71	10.07	20	80	.837
7. Life Values	92.17	17.39	42	126	.946

Note: α = Cronbach's alpha internal consistency coefficient.

Table 2: Zero-Order Correlations Among All Study Variables (N = 360)

Variable	1	2	3	4	5	6	7	M	SD
1. Sexual Regret	—							18.81	7.82
2. Parent-Adolescent Relationship	.03	—						11.38	2.22
3. Religiosity	-.04	.21**	—					53.82	14.04
4. ACE	-.11*	.32**	.50**	—				57.23	15.84
5. Impulsivity	.12*	.19**	.30**	.47**	—			53.62	10.98
6. Depression	.10	-.03	-.10	-.12*	.24**	—		41.71	10.07
7. Life Values	-.08	.09	.45**	.38**	.33**	-.01	—	92.17	17.39

Note: ACE = Adverse Childhood Experience. * $p < .05$. ** $p < .01$.

9.2 Bivariate Associations with Sexual Regret

As shown in Table 2, two of the six predictors were significantly associated with sexual regret. Adverse childhood experience was negatively associated with sexual regret ($r = -.114, p = .031$), indicating that participants reporting higher levels of childhood adversity tended to report *lower* sexual regret. Impulsivity was positively associated with sexual regret ($r = .117, p = .026$), such that higher impulsivity was associated with greater sexual regret. Parent-adolescent relationship quality ($r = .033, p = .532$), religiosity ($r = -.036, p = .499$), depression ($r = .098, p = .064$), and life values ($r = -.076, p = .149$) were not significantly associated with sexual regret. It is noted that depression's association approached, but did not reach, conventional significance. Among the predictors themselves, moderate-to-strong inter-correlations were observed, particularly between ACE and religiosity ($r = .50$), ACE and impulsivity ($r = .47$), and religiosity and life values ($r = .45$), though these did not indicate problematic multicollinearity in the regression model.

9.3 Hierarchical Multiple Regression Analysis

A hierarchical multiple regression was conducted to examine whether individual psychological characteristics explained additional variance in sexual regret after accounting for distal developmental and familial influences. In Model 1, parent-adolescent relationship quality, religiosity, and adverse childhood experiences were entered. This model accounted for 1.9% of the variance in sexual regret and was not statistically significant, $R^2 = .019$, adjusted $R^2 = .010$, $F(3, 356) = 2.242, p = .083$. Within this model, only adverse childhood experiences significantly predicted sexual regret ($\beta = -.148, p = .018$). In Model 2, impulsivity, depression, and life values were added. The full model was statistically significant, $R^2 = .061$, adjusted $R^2 = .045$, $F(6, 353) = 3.794, p = .001$. The addition of psychological variables explained a significant additional 4.2% of variance in sexual regret, $\Delta R^2 = .042, \Delta F(3, 353) = 5.266, p = .001$. In the final model, adverse childhood experiences ($\beta = -.219, p = .001$) and impulsivity ($\beta = .222, p = .001$) were the only significant independent predictors.

Table 3: Hierarchical Multiple Regression Model Summary Predicting Sexual Regret

Model	Predictors Entered	R	R ²	Adj R ²	ΔR ²	ΔF	Df	p
1	Parent-adolescent rel., religiosity, ACE	.136	.019	.010	—	2.242	3, 356	.083
2	+ Impulsivity, depression, life values	.246	.061	.045	.042	5.266	3, 353	.001

Note: ACE = Adverse Childhood Experience. ΔR² and ΔF values reflect the incremental contribution of each model step.

Table 4: Hierarchical Multiple Regression Coefficients Predicting Sexual Regret

Predictor	Model 1			Model 2					
	B	SE	β	B	SE	B	t	P	VIF
Intercept (Model 1 = 15.02; Model 2 = 15.90)				15.90	3.44	—	4.62	.000	—
1. Parent-Adol. Relationship	0.22	0.20	.061	0.22	0.19	.061	1.12	.264	1.12
2. Religiosity	0.02	0.04	.036	0.02	0.04	.036	.57	.569	1.51
3. ACE (M1)*	-0.07	0.03	-.148**	-0.11	0.03	-.219**	-3.22	.001	1.74
4. Impulsivity	—	—	—	0.16	0.05	.222**	3.50	.001	1.51
5. Depression	—	—	—	0.02	0.04	.023	.42	.675	1.15
6. Life Values	—	—	—	-0.04	0.03	-.088	-1.47	.143	1.35

Note: B = unstandardised coefficient; SE = standard error; β = standardised coefficient; VIF = variance inflation factor; ACE = Adverse Childhood Experience. Model 1: R² = .019. Model 2: R² = .061, Adjusted R² = .045. * $p < .05$ in Model 1. ** $p < .01$.

9.4 Gender Moderation Analysis

Two hierarchical regression models tested whether gender moderated the relationships between (a) impulsivity and sexual regret, and (b) ACE and sexual regret. For impulsivity, the interaction term (impulsivity × gender) was not significant ($B = -0.016$, $t = -0.214$, $p = .831$), indicating that gender did not moderate the impulsivity–regret relationship. For ACE, the interaction term was similarly non-significant ($B = -0.035$, $t = -0.655$, $p = .513$). A marginal gender main effect was observed, with males reporting slightly higher sexual regret than females ($M = 19.56$, $SD = 7.34$) compared with females ($M = 17.96$, $SD = 8.27$), although this difference did not reach conventional statistical significance, $t(358) = 1.95$, $p = .052$, Cohen’s $d = 0.21$ indicating a small effect size. The relationships between the two key predictors and sexual regret thus appeared equivalent across gender.

10. Discussion

This study examined familial and psychological predictors of sexual regret among emerging adults in Nigerian tertiary institutions. The findings make two notable contributions to the literature. First, they identify adverse childhood experiences and impulsivity as the only significant predictors of sexual regret among the variables examined. Second, and more importantly, they reveal an unexpected inverse association between childhood adversity and sexual regret, suggesting that greater exposure to early adversity may be associated with lower rather than higher levels of regret following

sexual experiences. These finding challenges conventional assumptions that adversity uniformly amplifies negative emotional outcomes and highlight the need to consider how developmental experiences may shape the emotional processing and appraisal of sexual behaviour during emerging adulthood.

10.1 The Inverse Association between ACE and Sexual Regret

Adverse childhood experiences emerged as the only significant predictor in the developmental model and remained a significant independent predictor after proximal psychological characteristics were entered into the hierarchical regression, indicating that the association was robust across both stages of the analysis. Contrary to conventional expectations, higher ACE exposure was associated with lower sexual regret. Although this finding appears inconsistent with a straightforward risk-factor model, it may reflect the complex ways in which early adversity shapes the emotional evaluation of later life experiences.

Within Arnett's (2000) Theory of Emerging Adulthood, the transition to adulthood is characterised by intensive identity exploration, increasing autonomy, and the construction of a coherent sense of self. During this developmental period, individuals evaluate experiences in relation to evolving personal values, future aspirations, and emerging identities. Emerging adults with extensive histories of childhood adversity may engage in these developmental tasks under altered emotional and interpersonal conditions, potentially influencing how sexual experiences are interpreted, integrated into the self-concept, and evaluated in relation to personal goals. From this developmental perspective, lower reported sexual regret among individuals with higher ACE exposure may reflect differences not only in emotional responsiveness but also in the meaning-making processes through which sexual experiences are understood and incorporated into their developing identities.

This developmental interpretation is complemented by a complementary proximal psychological explanation involving altered emotional processing following childhood adversity. A growing body of research suggests that repeated exposure to childhood maltreatment may disrupt emotional awareness, emotion regulation, and the processing of self-conscious emotions such as guilt and shame (Taylor *et al.*, 1997; Riem *et al.*, 2015). Childhood adversity has also been linked to emotional numbing and alexithymic tendencies, characterised by diminished emotional awareness and difficulty identifying and describing emotional experiences. These processes may reduce the intensity with which individuals consciously experience, interpret, or report emotions such as regret. Consequently, lower reported sexual regret among participants with higher ACE scores should not be interpreted as evidence of healthier sexual decision-making or superior psychological adjustment. Rather, the finding is consistent with theoretical accounts suggesting that childhood adversity may alter the emotional appraisal of sexual experiences, thereby influencing how sexual experiences are evaluated and incorporated into the developing self-concept.

At the same time, this interpretation should be considered with appropriate caution. The observed association between ACEs and sexual regret was modest in magnitude ($r = -.114$), and the present study did not directly assess emotional numbing, alexithymia, emotion regulation difficulties, or trauma-related coping processes. Consequently, these constructs should be regarded as plausible explanatory mechanisms rather than established mediators of the observed association. Future longitudinal research incorporating direct measures of emotional processing, alexithymia, and trauma-related functioning is needed to determine whether these mechanisms account for the relationship between childhood adversity and sexual regret among emerging adults. Replication across different cultural contexts and populations will also be important for establishing the robustness and generalisability of this finding.

10.2 Impulsivity as a Positive Predictor of Sexual Regret

The positive association between impulsivity and sexual regret ($r = .117$; $\beta = .222$) is consistent with a prospective-retrospective affect mismatch model. Impulsive sexual decisions are, by definition, made with insufficient deliberation and without adequate weighing of long-term consequences. The association between impulsivity and sexual regret is also consistent with the developmental characteristics of emerging adulthood, a period marked by increasing autonomy, experimentation, and reduced parental oversight, all of which create greater opportunities for impulsive sexual decision-making (Arnett, 2000, 2015). After the sexual encounter, prefrontal inhibitory and self-evaluative processes that may have been bypassed during impulsive behaviour become engaged, increasing the likelihood of retrospective regret (Lejuez *et al.*, 2005; Whiteside & Lynam, 2001, 2003). Emerging adulthood, characterised by heightened sensation-seeking and ongoing maturation of self-regulatory capacities, may be a particularly vulnerable period for this process.

The use of a total UPPS-P score in the present study, while psychometrically justified ($\alpha = .858$), does preclude identification of which impulsivity facets are most strongly implicated. Given the theoretical literature, negative urgency, defined as acting rashly under conditions of negative affect, and lack of premeditation, are the subscales most conceptually proximate to sexual regret. Future research employing subscale-level analysis is warranted.

10.3 Non-Significant Predictors: Interpretive Considerations

The absence of a significant parent-adolescent relationship effect is consistent with developmental-stage expectations. Research linking parental monitoring and bonding to sexual behaviour has predominantly sampled adolescents, among whom parental influence on sexual decision-making is normatively stronger (Biddlecom *et al.*, 2009; Graf, 2011). By emerging adulthood, the decisional autonomy that characterises Arnett's (2000) framework supplants parental regulation, rendering parent-adolescent quality less proximal to sexual choices and, consequently, to their affective aftermath. This finding does not negate the long-term developmental importance of parent-adolescent

relationship quality; it suggests that its influence on sexual regret specifically may operate through more distal pathways such as attachment style or early internalised working models not captured by a concurrent relationship quality measure. Interpretation of this finding should also be tempered by the relatively low internal consistency observed for the parent-adolescent relationship measure in the present sample, which may have attenuated associations involving this variable.

The null religiosity finding is more surprising given the Nigerian context, where Islamic and Christian norms prescribing sexual purity are culturally pervasive. One interpretation, consistent with Onipede (2011), is that among tertiary students, religiosity as a behavioural inhibitor has diminished force relative to the social and identity-exploratory imperatives of campus life. A complementary interpretation concerns measurement specificity: the CRS assesses religiosity as a dispositional and institutional orientation rather than as sexually specific moral internalisation. Individuals who are religiously devout in a general sense may not activate those norms in the specific moment of sexual decision-making. The scale's inability to capture context-specific moral salience may account for the null finding.

Depression showed a positive association with sexual regret that approached, but did not reach, statistical significance ($r = .098$, $p = .064$). This marginal result warrants caution. It is possible that the relationship between depression and sexual regret is bidirectional or temporally ordered, with regret generating depressive affect rather than depression precipitating regrettable sexual behaviour. Cross-sectional designs cannot disentangle this directionality; longitudinal approaches measuring both variables at multiple time points are needed. Similarly, the null values finding may reflect the LVI's measurement of abstract, global values rather than their behavioural activation in specific sexual contexts. Collectively, these null findings suggest that enduring developmental characteristics may be more important than contemporaneous beliefs or emotional states in explaining sexual regret among emerging adults.

10.4 The Low Overall Variance Explained

Although modest (6.1%), the proportion of explained variance is consistent with expectations for affective outcomes influenced by numerous situational, relational, and developmental factors. While statistically significant, this figure indicates that the large majority of variance remains unaccounted for by the present predictors. This is not unusual for cross-sectional regression models of complex affective outcomes (Cohen *et al.*, 2003), but it does highlight that sexual regret is shaped by variables not captured in the present study. Other variables likely to contribute include sexual attitudes and schemas, relationship context at the time of the sexual encounter, substance use, peer norms, self-esteem, and the type of sexual activity involved (casual versus partnered). The characteristics of the specific sexual encounter, particularly perceived pressure, consent quality, and emotional investment, are likely powerful proximal determinants of regret that could not be assessed within the present design. Future research should integrate situational and relational variables alongside dispositional predictors.

10.5 Limitations

The findings should be interpreted in light of several limitations. The cross-sectional design precludes causal inference, and the reliance on self-report measures may have introduced social desirability and recall biases in this sensitive area of inquiry. In addition, the study did not assess potentially important explanatory mechanisms, such as alexithymia or emotion regulation, which may help clarify the observed relationship between adverse childhood experiences and sexual regret. The use of a sample drawn from three tertiary institutions within a single Nigerian state may also limit the generalisability of the findings to other populations and contexts. An additional limitation concerns the assessment of parent–adolescent relationship quality using a brief behavioural measure with relatively low internal consistency. Although the items captured key aspects of parent–adolescent interactions, the measure was not a comprehensive, standardised instrument. Consequently, findings involving this variable should be interpreted cautiously. Future research should employ psychometrically established multidimensional measures of parent–adolescent relationships to provide a more robust assessment of this construct. Finally, information regarding the timing and nature of regretted sexual experiences was not collected, which may have contributed to variability in participants' reported levels of sexual regret.

11. Conclusions and Implications

The present study advances understanding of sexual regret by conceptualising it as a developmental outcome shaped by both developmental and familial influences and proximal psychological characteristics. Rather than viewing sexual regret solely as a consequence of individual sexual behaviour, the findings suggest that it reflects broader developmental processes through which emerging adults evaluate sexual experiences in relation to identity, self-concept, and personal values.

By integrating Emerging Adulthood Theory with evidence on childhood adversity and self-regulation, this study provides a developmental perspective on the emotional consequences of sexual decision-making among Nigerian emerging adults. The findings further suggest that both developmental and familial influences and proximal psychological characteristics operate together in shaping how sexual experiences are emotionally evaluated, underscoring the value of developmental frameworks for understanding sexual well-being in emerging adulthood.

From a practical perspective, the findings support the development of trauma-informed and developmentally informed sexual health programmes within tertiary institutions. Interventions that strengthen self-regulation while recognising the enduring influence of childhood adversity may better support healthy sexual decision-making and psychosocial adjustment than approaches focused exclusively on behavioural risk.

Future longitudinal and mixed-methods studies should examine the mechanisms through which childhood adversity influences sexual regret by incorporating direct measures of emotional processing, alexithymia, emotion regulation, attachment, and self-

concept. Replication across diverse African populations will further clarify the developmental processes underlying sexual regret and strengthen the evidence base for culturally responsive sexual health interventions.

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Conflict of Interest Statement

The authors declare no conflicts of interest.

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