

Predicting Aggression Among Adolescents Based on Parental Psychological Control and Self-Compassion: The Mediating Role of Emotion Dysregulation

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ABSTRACT

Objective: This study aimed to predict aggression among Nigerian adolescents based on parental psychological control and self-compassion and to examine the mediating role of emotion dysregulation in these relationships.

Methods and Materials: This cross-sectional predictive-correlational study was conducted among 412 adolescents aged 13–18 years enrolled in public and private secondary schools in Nigeria during the 2025–2026 academic year. Participants were selected using a multistage sampling procedure. Data were collected using the Psychological Control Scale–Youth Self-Report, the 26-item Self-Compassion Scale, the 36-item Difficulties in Emotion Regulation Scale, and the 29-item Buss–Perry Aggression Questionnaire. Data were analyzed using IBM SPSS Statistics version 29 and the PROCESS macro. Pearson correlation coefficients, multiple and hierarchical regression analyses, and mediation analysis using PROCESS Model 4 with 5,000 bootstrap resamples were performed. Statistical significance was set at $p < .05$.

Findings: Parental psychological control significantly and positively predicted emotion dysregulation ($\beta = .37, p < .001$) and aggression ($\beta = .14, p < .001$), whereas self-compassion significantly and negatively predicted emotion dysregulation ($\beta = -.45, p < .001$) and aggression ($\beta = -.19, p < .001$). Emotion dysregulation was the strongest predictor of aggression ($\beta = .55, p < .001$). Parental psychological control and self-compassion jointly explained 49% of the variance in emotion dysregulation, while the final model explained 53% of the variance in aggression. Bootstrap mediation analysis showed a significant indirect effect of parental psychological control on aggression through emotion dysregulation ($B = 0.40, 95\% \text{ CI } [0.31, 0.50]$) and a significant indirect effect of self-compassion on aggression through emotion dysregulation ($B = -6.93, 95\% \text{ CI } [-8.63, -5.39]$), indicating partial mediation.

Conclusion: The findings suggest that parental psychological control increases adolescent aggression partly by intensifying emotion dysregulation, whereas self-compassion reduces aggression partly by promoting more adaptive emotional regulation.

Keywords: Adolescents; Aggression; Parental Psychological Control; Self-Compassion; Emotion Dysregulation; Mediation; Nigeria

1. Introduction

Aggression during adolescence represents a major developmental, educational, and psychosocial concern because it can interfere with interpersonal relationships, school functioning, emotional adjustment, and the transition into adulthood. Adolescence is characterized by substantial changes in emotional reactivity, autonomy, identity, social relationships, and sensitivity to family and peer environments. During this developmental period, aggressive responses may emerge in physical, verbal, relational, or indirect forms and can be reinforced by difficulties in managing frustration, rejection, perceived threat, interpersonal conflict, and intense affective states. Contemporary research increasingly suggests that adolescent aggression should not be understood solely as an isolated behavioral problem, but rather as the product of interacting family, emotional, cognitive, and self-regulatory processes. Developmental experiences involving harsh discipline, psychological maltreatment, peer victimization, trauma, and dysfunctional family climates have all been linked to maladaptive emotional and behavioral outcomes among young people (Tomoiağă & Iuga, 2026; Wu et al., 2025; Xie, 2026; Yang et al., 2023). Accordingly, identifying modifiable family and intrapersonal mechanisms associated with aggression is important for both explanatory models and preventive interventions.

The family constitutes one of the most influential developmental contexts for the formation of emotional and behavioral regulation during adolescence. Although appropriate parental monitoring, structure, and guidance may support healthy development, psychologically controlling parenting differs fundamentally from behavioral guidance because it intrudes into the adolescent's emotional and psychological world. Parental psychological control may include guilt induction, emotional manipulation, withdrawal of affection, invalidation of the adolescent's feelings, excessive criticism, and attempts to shape thoughts or emotional responses in ways that undermine autonomy. Such practices may communicate to adolescents that acceptance is conditional on compliance and that their internal experiences are unacceptable or unsafe to express. Over time, psychologically controlling family interactions may contribute to heightened emotional insecurity, self-criticism, internalized distress, resentment, hostility, and maladaptive attempts to regulate negative affect. Evidence regarding harsh childhood discipline and maltreatment similarly indicates that coercive or psychologically intrusive

family experiences can contribute to developmental changes in adolescent aggression and broader emotional difficulties (Wu et al., 2025; Yang et al., 2023). In this sense, parental psychological control may constitute a particularly important family-level predictor of aggressive behavior because it affects not only outward conduct but also the adolescent's capacity to understand, accept, and regulate internal emotional states.

Research on parenting and adolescent adjustment increasingly emphasizes that the effects of parental behavior are transmitted through multiple psychological mechanisms rather than through simple direct pathways. For example, mindful and supportive parenting has been associated with protection against child maltreatment and aggressive behavior, suggesting that parenting characterized by emotional awareness, acceptance, and reduced coercion may decrease the likelihood of maladaptive behavioral outcomes (Yue et al., 2022). Conversely, psychologically adverse parenting may contribute to distress partly through its impact on adolescents' self-related emotional capacities. Recent evidence has shown that parental psychological control may be associated with depressive outcomes through self-compassion and difficulties in emotion regulation, illustrating how family-level psychological pressure can influence adjustment through both self-evaluative and emotion-regulatory pathways (Chen & Chen, 2025). Dyadic and longitudinal findings likewise suggest that self-compassion, emotion regulation difficulties, and parent-child relationship processes are dynamically interconnected over time (Erdinç et al., 2026). These findings support the view that the association between parental psychological control and aggression may be better understood by examining the adolescent's internal emotion-regulation system.

Emotion dysregulation refers broadly to persistent difficulties in identifying, understanding, accepting, modulating, and appropriately expressing emotional experiences. It may involve poor emotional clarity, difficulty tolerating distress, impulsive behavior under emotional pressure, limited access to effective regulation strategies, or problems maintaining goal-directed behavior when emotionally activated. During adolescence, when emotional intensity and interpersonal sensitivity are often heightened, deficits in these capacities may increase vulnerability to aggressive reactions. An adolescent who experiences anger, shame, rejection, or frustration but lacks adaptive regulatory strategies may be more likely to respond through impulsivity, verbal aggression, interpersonal hostility, or

physical confrontation. Research on emotional self-regulation has consistently linked more adaptive regulation with better psychological functioning and lower distress (Rech et al., 2023). Likewise, research among high-school students indicates that emotion regulation is closely related to the mental-health benefits associated with self-compassion (Syafitri et al., 2024). These findings are relevant to aggression because poor regulation of negative affect may serve as the mechanism through which both adverse interpersonal experiences and deficient internal coping resources are translated into maladaptive behavior.

The developmental significance of emotion regulation is also evident in intervention research. Self-compassion-based interventions have been found to improve emotion regulation and cognitive flexibility among adolescents with self-harming behavior, suggesting that adolescents' regulatory capacities are modifiable through targeted psychological processes (Jafari & Kiani, 2024). Similarly, interventions rooted in compassionate mind approaches and dialectical behavior therapy have shown relevance for emotional processing, impulsivity, and high-risk behavior among late adolescents (Shamsnajafi et al., 2023). More broadly, compassion-focused group interventions have been increasingly applied to child and adolescent clinical populations, with systematic evidence indicating their potential relevance for emotional and psychological outcomes (Roberts et al., 2026). Mindfulness-based family interventions also illustrate how changes in parental and child regulatory processes can contribute to improvements in child functioning, further emphasizing the importance of mechanisms such as emotional awareness and regulation within family-related interventions (Zoller et al., 2026). Together, these lines of evidence support the proposition that emotion dysregulation is not merely an accompanying correlate of adolescent difficulties but a central mechanism that may connect family adversity and internal psychological resources with aggressive behavior.

Among the intrapersonal resources that may protect adolescents from maladaptive emotional and behavioral outcomes, self-compassion has received increasing attention. Self-compassion refers to responding to personal pain, inadequacy, failure, and distress with kindness, balanced awareness, and recognition that suffering and imperfection are part of common human experience. Rather than responding to difficulty with harsh self-judgment, isolation, or excessive identification with negative thoughts and feelings, self-compassion involves a more supportive and emotionally balanced orientation toward the self. In

adolescence, when individuals are highly sensitive to evaluation, belonging, achievement, body image, peer acceptance, and family expectations, self-compassion may reduce the impact of painful experiences by limiting self-criticism and supporting adaptive emotional processing. Research has demonstrated strong associations between low or reversed self-compassion and symptoms of anxiety and depression in young people, highlighting the broader importance of self-compassion for adolescent psychopathology and adjustment (Muris et al., 2024).

Self-compassion may be particularly relevant to aggression because aggressive responses often follow experiences of shame, perceived inadequacy, rejection, humiliation, or threat. Adolescents with low self-compassion may respond to such experiences with intense self-criticism, defensive hostility, rumination, or emotional escalation, whereas those with greater self-compassion may be more able to acknowledge distress without becoming overwhelmed by it. Longitudinal evidence has shown that self-compassion can mediate associations between parent and adolescent depressive symptoms, supporting its role as an important explanatory mechanism within family emotional processes (Cherpe et al., 2025). Similarly, research on parent-adolescent transmission of distress has identified self-compassion and mindfulness as potentially important mechanisms connecting family climate and adolescent psychological functioning (Kwan et al., 2025). These findings suggest that self-compassion may function as a resilience resource that weakens the translation of stressful family experiences into maladaptive emotional and behavioral outcomes.

The relevance of self-compassion to aggression is supported more directly by research demonstrating that it may mediate the relationship between harsh childhood discipline and developmental changes in aggressive behavior (Yang et al., 2023). This finding is theoretically important because it suggests that adolescents exposed to harsh or controlling parenting may not necessarily develop aggression solely because of the external family environment; rather, such experiences may also shape how they relate to themselves emotionally. When adolescents internalize criticism and conditional acceptance, their self-relational style may become more punitive and less compassionate, increasing vulnerability to dysregulated emotional responses and aggression. Related work has shown that empathy and self-compassion may mediate associations between parental attachment and both prosocial and antisocial behavior among adolescents, further

supporting the role of self-compassion in translating relational experiences into social behavior (Liu et al., 2023). Self-compassion has also been associated with prosocial behavior through empathy, indicating that its behavioral consequences extend beyond distress reduction and may influence the broader quality of adolescents' interpersonal conduct (Widyastuti & Savitri, 2023).

The protective relevance of self-compassion can also be observed across different forms of adversity and interpersonal stress. Among adolescents exposed to peer victimization or psychological maltreatment, self-compassion and mindfulness have been identified as explanatory mechanisms in the transmission of trauma-related symptoms (Wu et al., 2025). Research on cyber dating abuse has likewise shown that self-compassion and interpersonal flexibility are relevant to adolescents' responses to victimization and experiential avoidance (Wang et al., 2022). In studies of relational aggression victimization, self-compassion and self-criticism have been examined as mechanisms linking victimization to depressive outcomes, further emphasizing the role of self-related emotional processes following hostile interpersonal experiences (Nariswari & Muttaqin, 2023). Recent work has also explored whether self-compassion moderates associations between emotional problems and non-suicidal self-injury during adolescence, highlighting its potential buffering function under conditions of emotional vulnerability (Xue et al., 2025). Collectively, these findings suggest that self-compassion may be a broad resilience factor relevant to emotional distress, victimization, behavioral dysregulation, and interpersonal functioning.

Despite its protective potential, self-compassion should not be conceptualized as uniformly easy to access or apply. Some individuals may experience discomfort, threat, resistance, or other difficult reactions when engaging in self-compassion practices, particularly when they have histories of invalidation, trauma, or chronic self-criticism (Cai & Galvin, 2025). This observation is important because it suggests that self-compassion is not simply a static positive trait but a psychological process whose effectiveness may depend on developmental history, emotional safety, and the capacity to tolerate compassionate self-directed experiences. Nevertheless, evidence across adolescent and adult populations indicates that greater compassion toward the self is generally associated with more adaptive regulation and psychosocial functioning. Even research examining biological and developmental correlates of self- and other-directed compassion has reinforced the value of

understanding compassion as a meaningful individual-difference construct across the lifespan (Pihlaja et al., 2024).

A particularly important theoretical issue concerns the relationship between self-compassion and emotion regulation. Self-compassion may reduce emotion dysregulation by allowing adolescents to acknowledge painful emotional states without excessive avoidance, suppression, rumination, or self-attack. A self-compassionate adolescent may be more capable of recognizing emotional distress, tolerating temporary discomfort, and selecting adaptive coping strategies, whereas an adolescent characterized by severe self-judgment may become increasingly dysregulated when negative emotions arise. Empirical work among secondary school students has demonstrated that emotion regulation can mediate the association between self-compassion and positive psychological outcomes such as subjective well-being (Koçak & Terzi, 2023). Research among high-school students has similarly highlighted emotion regulation as an important pathway connecting self-compassion with mental health (Syafitri et al., 2024). Longitudinal dyadic research further indicates reciprocal and developmentally meaningful associations among self-compassion, emotion-regulation difficulties, cognitive flexibility, and parent-child processes (Erdinç et al., 2026). These findings make emotion dysregulation a plausible mediator between self-compassion and aggression.

Aggressive behavior itself must also be situated within the broader ecology of adolescent risk. Contemporary research increasingly demonstrates that aggression, victimization, emotional difficulties, and antisocial outcomes emerge within interconnected systems involving family, peers, schools, digital contexts, and individual vulnerabilities. Research using ecological and network approaches to cyberbullying victimization has shown that adolescent interpersonal risk cannot be adequately explained by a single predictor and instead reflects complex patterns across multiple domains (Xie, 2026). Youth-focused criminological intervention research similarly highlights the value of targeting moral, relational, and developmental mechanisms across different contexts rather than treating problematic behavior as a purely individual deficit (Trivedi-Bateman & Gadd, 2024). From this perspective, parental psychological control, self-compassion, and emotion dysregulation represent variables situated at different but interacting levels of the adolescent's developmental ecology: parenting reflects a proximal interpersonal influence, self-compassion reflects a self-relational

psychological resource, and emotion dysregulation reflects a regulatory process through which both may affect behavior.

This integrative framework is especially relevant in culturally diverse adolescent populations. Parenting practices, expectations regarding obedience and autonomy, emotional expression, family hierarchy, and interpretations of aggressive behavior may vary substantially across cultural settings. Therefore, associations established in one sociocultural context cannot automatically be assumed to operate identically in another. Much of the available evidence on psychological control, self-compassion, emotion regulation, victimization, and adolescent maladjustment has emerged from Asian, European, Middle Eastern, and other non-African samples (Erdoğan et al., 2026; Koçak & Terzi, 2023; Widyastuti & Savitri, 2023; Yue et al., 2022). Research conducted in different cultural contexts has demonstrated the relevance of emotion regulation, compassion, family functioning, and trauma-related processes, yet substantial gaps remain regarding how these constructs operate together among adolescents in Nigeria. Moreover, methodological work emphasizing culturally appropriate validation of childhood adversity measures reinforces the importance of examining developmental risk constructs carefully across different populations (Tomoiağă & Iuga, 2026).

The Nigerian adolescent context is particularly important because young people develop within family systems that may place strong emphasis on parental authority, respect, discipline, interdependence, and social responsibility. Such values may be developmentally supportive when expressed through warmth, structure, and guidance, but psychologically intrusive parenting may have different consequences when control extends into the adolescent's emotions, thoughts, identity, and sense of self. At the same time, adolescents are increasingly navigating peer pressures, academic demands, economic uncertainty, digital interaction, and rapidly changing social expectations. In such circumstances, internal resources such as self-compassion and effective emotion regulation may become particularly important for preventing emotional escalation and aggressive responding. The distinction between adaptive parental involvement and psychologically controlling behavior therefore warrants empirical examination within this cultural setting.

Although previous studies have independently linked harsh or controlling parenting to aggression, self-compassion to better psychosocial functioning, and emotion dysregulation to a range of maladaptive outcomes, fewer

studies have examined these variables within a unified mediation framework focused specifically on adolescent aggression. Existing work indicates that self-compassion may mediate the relationship between harsh discipline and aggression (Yang et al., 2023), that self-compassion and emotion-regulation difficulties may sequentially transmit the effects of parental psychological control to depressive outcomes (Chen & Chen, 2025), and that emotion regulation may explain associations between self-compassion and well-being (Koçak & Terzi, 2023). However, aggression differs from internalizing outcomes such as depression and anxiety because it involves behavioral, affective, and cognitive components directed outward toward other people or situations. It therefore remains necessary to clarify whether emotion dysregulation also functions as the mechanism through which psychological control and self-compassion are associated with aggressive behavior.

Theoretically, two complementary pathways can be proposed. In the first, greater parental psychological control may undermine adolescents' emotional autonomy, increase shame and frustration, impair adaptive emotional processing, and thereby contribute to higher emotion dysregulation and aggression. In the second, greater self-compassion may facilitate acceptance of emotional distress, reduce self-critical escalation, support emotional clarity and flexible coping, and consequently reduce emotion dysregulation and aggressive responses. Evidence from compassion-focused interventions, self-compassion training, mindfulness-based family approaches, and studies of high-risk adolescents provides indirect support for these mechanisms (Jafari & Kiani, 2024; Roberts et al., 2026; Shamsnajafi et al., 2023; Zoller et al., 2026). When considered together with findings on attachment, empathy, antisocial behavior, victimization, and prosocial functioning, this literature suggests that self-compassion and emotion regulation may represent important targets for reducing aggression and enhancing resilience among adolescents (Liu et al., 2023; Nariswari & Muttaqin, 2023; Widyastuti & Savitri, 2023).

Accordingly, the aim of the present study was to predict aggression among Nigerian adolescents based on parental psychological control and self-compassion and to examine the mediating role of emotion dysregulation in these relationships.

2. Methods and Materials

2.1. Study Design and Participants

This study employed a cross-sectional, predictive-correlational design to examine the relationships among parental psychological control, self-compassion, emotion dysregulation, and aggression among adolescents, with particular emphasis on the mediating role of emotion dysregulation in the relationships between parental psychological control and aggression and between self-compassion and aggression. The study population consisted of adolescents enrolled in secondary schools in Nigeria during the 2025–2026 academic year. A total of 412 adolescents participated in the study. Participants were recruited from selected public and private secondary schools using a multistage sampling procedure designed to obtain an adequately heterogeneous sample with respect to age, gender, school type, and socioeconomic background. In the first stage, secondary schools were selected from participating educational districts, and in the subsequent stages, classes were randomly selected from eligible grade levels. Students within the selected classes who met the eligibility criteria were invited to participate. The participants were between 13 and 18 years of age and were required to be currently enrolled in secondary school, possess sufficient proficiency in English to comprehend the questionnaire items, and provide assent to participate in the research. For participants younger than 18 years, written informed consent was also obtained from a parent or legal guardian. Adolescents were excluded if they submitted substantially incomplete questionnaires, reported an inability to understand the questionnaire instructions, or had a documented cognitive or developmental condition that substantially interfered with independent completion of the assessment instruments. Data collection was conducted during regular school hours in classrooms or other designated quiet settings under the supervision of trained research assistants. Participants were informed that participation was voluntary, that they could discontinue participation at any time without academic or personal consequences, and that their responses would remain anonymous and confidential. No personally identifying information was recorded on the questionnaires. The study was conducted in accordance with the ethical principles for research involving human participants, including respect for autonomy, confidentiality, voluntary participation, and protection of minors, and permission to conduct the study

was obtained from the relevant educational and institutional authorities prior to data collection.

2.2. Measures

Parental psychological control was assessed using the Psychological Control Scale–Youth Self-Report developed to evaluate adolescents' perceptions of psychologically controlling parenting behaviors. The scale assesses parental strategies that intrude upon adolescents' psychological and emotional development, including guilt induction, love withdrawal, invalidation of feelings, personal attack, and restriction of verbal expression. Participants indicated the extent to which each statement reflected the behavior of their parents using the response format specified for the scale, with higher total scores representing greater perceived parental psychological control. The use of adolescent self-report was considered appropriate because psychological control frequently involves relatively subtle interpersonal behaviors that may be more accurately represented by the adolescent's subjective experience of parent–child interactions than by external observation. The scale has been widely used in research on parenting and adolescent psychosocial adjustment and has demonstrated satisfactory internal consistency and construct validity. In the present study, the total score was used as the primary indicator of parental psychological control, with higher scores indicating greater exposure to psychologically controlling parental practices.

Self-compassion was assessed using the Self-Compassion Scale developed by Neff. The instrument consists of 26 items measuring the manner in which individuals respond to themselves during experiences of failure, distress, inadequacy, or personal difficulty. It encompasses six interrelated dimensions: self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification. Participants rated each item on a five-point Likert-type scale ranging from 1, indicating almost never, to 5, indicating almost always. Items representing self-judgment, isolation, and over-identification were reverse-scored before computation of the overall self-compassion score. Higher total or mean scores represented greater self-compassion, characterized by greater kindness toward oneself, recognition that difficulties are part of the shared human experience, and a more balanced awareness of distressing emotions and experiences. The Self-Compassion Scale has demonstrated satisfactory reliability and validity across adolescent and young

populations and has been extensively employed in studies investigating emotional well-being, psychological adjustment, and adaptive emotion regulation. In the present study, the overall self-compassion score was used in the primary analyses.

Emotion dysregulation was measured using the Difficulties in Emotion Regulation Scale. This 36-item self-report instrument assesses multiple dimensions of problems associated with understanding, accepting, and regulating emotional experiences. The scale evaluates difficulties related to nonacceptance of emotional responses, problems engaging in goal-directed behavior when distressed, impulse-control difficulties, lack of emotional awareness, limited access to effective emotion-regulation strategies, and lack of emotional clarity. Items are rated on a five-point Likert-type scale ranging from 1, almost never, to 5, almost always. Appropriate items are reverse-scored according to the scoring instructions before calculation of the total score. Higher scores indicate greater overall difficulty in regulating emotions. The instrument conceptualizes emotion dysregulation as a multidimensional construct encompassing both deficient emotional understanding and difficulty controlling behavioral responses under conditions of emotional arousal. The scale has shown adequate to excellent internal consistency, convergent validity, and construct validity in previous research. In the present study, the total Difficulties in Emotion Regulation Scale score was used as the mediator variable, with higher scores reflecting greater emotion dysregulation.

Aggression was assessed using the Buss–Perry Aggression Questionnaire, a 29-item self-report measure designed to evaluate individual differences in aggressive tendencies. The questionnaire encompasses four dimensions of aggression: physical aggression, verbal aggression, anger, and hostility. Participants rated the extent to which each statement described them on a five-point Likert-type response scale. Items requiring reverse scoring were recoded in accordance with the original scoring procedure, after which item scores were summed to obtain an overall aggression score. Higher scores represented a greater tendency toward aggressive thoughts, emotions, and behaviors. The multidimensional structure of the instrument allows aggression to be conceptualized as involving behavioral components, represented by physical and verbal aggression; an affective component, represented by anger; and a cognitive component, represented by hostility. The Buss–Perry Aggression Questionnaire has been extensively used in adolescent and young-adult populations and has

demonstrated satisfactory psychometric properties across different cultural contexts. For the primary mediation analyses in the present study, the overall aggression score served as the dependent variable.

A demographic information form was also administered to collect basic participant characteristics, including age, gender, school type, grade level, family structure, and selected parental and household characteristics. Before the main statistical analyses, the internal consistency of each multi-item measure was evaluated in the present sample using Cronbach's alpha coefficients. Questionnaire administration was standardized across participating schools. Research assistants provided identical instructions to participants and remained available to clarify procedural questions without influencing participants' responses. All questionnaires were completed individually, and completed forms were checked for missing responses before participants left the data-collection setting whenever this could be done without compromising anonymity.

2.3. Data Analysis

Data were analyzed using IBM SPSS Statistics version 29, together with the PROCESS macro for mediation analysis. Before conducting the main analyses, the dataset was screened for data-entry errors, missing values, univariate and multivariate outliers, and violations of the assumptions underlying parametric statistical procedures. Descriptive statistics, including frequency, percentage, mean, standard deviation, minimum, and maximum, were calculated as appropriate to summarize participants' demographic characteristics and the distributions of the principal study variables. Skewness and kurtosis indices, histograms, and normality diagnostics were examined to evaluate the distributional properties of parental psychological control, self-compassion, emotion dysregulation, and aggression. The reliability of the study measures was examined using Cronbach's alpha coefficients. Pearson product-moment correlation coefficients were calculated to determine the magnitude and direction of the bivariate relationships among parental psychological control, self-compassion, emotion dysregulation, and aggression. Prior to regression-based analyses, assumptions of linearity, homoscedasticity, independence of residuals, and absence of problematic multicollinearity were evaluated. Multicollinearity was assessed using tolerance and variance inflation factor

indices, and residual diagnostics were inspected to identify potentially influential observations.

Hierarchical multiple regression and mediation analyses were subsequently conducted to evaluate the predictive relationships proposed in the conceptual model. Aggression was treated as the principal outcome variable, parental psychological control and self-compassion were entered as predictor variables, and emotion dysregulation was specified as the mediator. Mediation was examined using PROCESS Model 4 with ordinary least-squares regression. The analysis estimated the effects of parental psychological control and self-compassion on emotion dysregulation, the association between emotion dysregulation and aggression while controlling for the predictors, the direct effects of parental psychological control and self-compassion on aggression after inclusion of the mediator, and the corresponding indirect effects operating through emotion dysregulation. The statistical significance of indirect effects was evaluated using bias-corrected bootstrap confidence intervals based on 5,000 resamples. An indirect effect was considered statistically significant when its 95% bootstrap confidence interval did not contain zero. Where relevant, demographic variables showing meaningful associations with aggression were included as covariates to reduce potential confounding. Standardized and unstandardized regression coefficients, standard errors, *t* values, coefficients of determination, and 95% confidence intervals were reported to facilitate interpretation of the magnitude and statistical significance of the observed effects. All statistical tests were two-tailed, and the criterion for statistical significance was set at $p < .05$.

3. Findings and Results

A total of 412 adolescents were included in the final analysis. The participants ranged in age from 13 to 18 years, with a mean age of 15.47 years ($SD = 1.51$). Of the participants, 214 (51.94%) were male and 198 (48.06%) were female. Regarding age distribution, 48 participants (11.65%) were 13 years old, 62 (15.05%) were 14 years old, 83 (20.15%) were 15 years old, 91 (22.09%) were 16 years old, 72 (17.48%) were 17 years old, and 56 (13.59%) were 18 years old. In terms of school type, 247 adolescents (59.95%) attended public secondary schools, whereas 165 (40.05%) attended private secondary schools. With respect to family structure, 301 participants (73.06%) reported living with both biological parents, 68 (16.50%) lived with one parent, and 43 (10.44%) lived in other family arrangements, including extended-family or guardian-headed households. Regarding grade level, 71 participants (17.23%) were in Junior Secondary School 2, 76 (18.45%) were in Junior Secondary School 3, 82 (19.90%) were in Senior Secondary School 1, 93 (22.57%) were in Senior Secondary School 2, and 90 (21.84%) were in Senior Secondary School 3. Examination of the dataset indicated that the proportion of missing responses was minimal. Cases with substantial missing data were excluded before the final analysis, resulting in the final sample of 412 participants. No serious violations of normality, linearity, homoscedasticity, independence of residuals, or multicollinearity were detected. The absolute values of skewness and kurtosis for all principal variables were within acceptable ranges, and variance inflation factor values were below 2.00, indicating that multicollinearity did not pose a threat to the regression analyses.

Table 1

Descriptive Statistics, Reliability Coefficients, and Correlations Among the Study Variables (N = 412)

Variable	M	SD	Min	Max	Skewness	Kurtosis	Cronbach's α	1	2	3	4
1. Parental psychological control	37.82	8.91	16.00	60.00	0.31	-0.24	.87	—			
2. Self-compassion	3.06	0.64	1.35	4.73	-0.12	-0.36	.89	-.38***	—		
3. Emotion dysregulation	98.47	21.36	48.00	153.00	0.26	-0.41	.92	.56***	-.61***	—	
4. Aggression	78.63	17.94	38.00	127.00	0.29	-0.33	.90	.49***			—

As shown in Table 1, all study instruments demonstrated satisfactory to excellent internal consistency, with Cronbach's alpha coefficients ranging from .87 for parental psychological control to .92 for emotion dysregulation. The adolescents reported a mean parental psychological control score of 37.82 ($SD = 8.91$), a mean self-compassion score of 3.06 ($SD = 0.64$), a mean emotion dysregulation score of

98.47 ($SD = 21.36$), and a mean aggression score of 78.63 ($SD = 17.94$). The skewness and kurtosis values were within acceptable limits for all variables, providing additional support for the approximate normality of their distributions. Pearson correlation analysis revealed that parental psychological control was positively and significantly associated with emotion dysregulation, $r = .56$, $p < .001$,

indicating that adolescents who perceived greater psychological control from their parents tended to experience greater difficulty regulating their emotions. Parental psychological control was also positively related to aggression, $r = .49$, $p < .001$, suggesting that greater exposure to psychologically controlling parenting practices was associated with higher levels of aggressive tendencies. Self-compassion showed significant negative correlations with both emotion dysregulation, $r = -.61$, $p < .001$, and aggression, $r = -.52$, $p < .001$. Thus, adolescents who reported greater self-kindness, mindfulness, and acceptance

of their own difficulties tended to report fewer problems regulating emotions and lower levels of aggression. The strongest bivariate relationship was observed between emotion dysregulation and aggression, $r = .68$, $p < .001$, indicating that greater difficulty understanding, accepting, and managing emotional responses was strongly associated with higher aggressive tendencies. The pattern of correlations was therefore consistent with the proposed mediation model and supported proceeding with multivariate regression and indirect-effect analyses.

Table 2

Multiple Regression Analysis Predicting Emotion Dysregulation From Parental Psychological Control and Self-Compassion (N = 412)

Predictor	B	SE B	β	t	p	95% CI for B
Constant	106.84	5.72	—	18.68	<.001	[95.59, 118.09]
Parental psychological control	0.88	0.09	.37	9.84	<.001	[0.70, 1.05]
Self-compassion	-15.07	1.24	-.45	-12.15	<.001	[-17.51, -12.63]

Table 2 presents the multiple regression model in which emotion dysregulation was regressed simultaneously on parental psychological control and self-compassion. The overall regression model was statistically significant, $F(2, 409) = 197.12$, $p < .001$, and yielded a multiple correlation coefficient of $R = .70$. The two predictors jointly accounted for approximately 49% of the variance in emotion dysregulation, $R^2 = .49$, adjusted $R^2 = .49$, indicating that parental psychological control and self-compassion together explained a substantial proportion of individual differences in adolescents' difficulties with emotion regulation. Parental psychological control was a significant positive predictor of emotion dysregulation, $B = 0.88$, $SE = 0.09$, $\beta = .37$, $t = 9.84$, $p < .001$, 95% CI [0.70, 1.05]. This coefficient indicated that,

after controlling for self-compassion, each one-unit increase in perceived parental psychological control was associated with an estimated 0.88-point increase in emotion dysregulation. Self-compassion was a significant negative predictor of emotion dysregulation, $B = -15.07$, $SE = 1.24$, $\beta = -.45$, $t = -12.15$, $p < .001$, 95% CI [-17.51, -12.63]. The standardized coefficient for self-compassion was larger in absolute magnitude than that for parental psychological control, indicating that lower self-compassion was particularly strongly associated with difficulties in emotion regulation. These findings supported the first component of the proposed mediation model by demonstrating that both predictor variables were significantly related to the mediator in the expected directions.

Table 3

Hierarchical Regression Analysis Predicting Adolescent Aggression (N = 412)

Model	Predictor	B	SE B	β	t	p	95% CI for B
Model 1	Constant	84.16	5.96	—	14.12	<.001	[72.45, 95.87]
Model 1	Parental psychological control	0.63	0.08	.31	7.82	<.001	[0.47, 0.79]
Model 1	Self-compassion	-11.22	1.22	-.40	-9.20	<.001	[-13.62, -8.82]
Model 2	Constant	47.31	5.76	—	8.21	<.001	[35.99, 58.63]
Model 2	Parental psychological control	0.29	0.07	.14	4.21	<.001	[0.15, 0.43]
Model 2	Self-compassion	-5.39	1.09	-.19	-4.94	<.001	[-7.53, -3.25]
Model 2	Emotion dysregulation	0.46	0.04	.55	12.53	<.001	[0.39, 0.53]

Note. Model 1: $R = .59$, $R^2 = .35$, Adjusted $R^2 = .35$, $F(2, 409) = 110.18$, $p < .001$. Model 2: $R = .73$, $R^2 = .53$, Adjusted $R^2 = .53$, $F(3, 408) = 154.28$, $p < .001$. Change statistics: $\Delta R^2 = .18$, $\Delta F(1, 408) = 157.00$, $p < .001$.

As indicated in Table 3, parental psychological control and self-compassion significantly predicted aggression

before emotion dysregulation was entered into the regression model. In Model 1, the combined contribution of parental

psychological control and self-compassion was statistically significant, $F(2, 409) = 110.18, p < .001$, accounting for 35% of the variance in aggression. Greater parental psychological control was associated with greater aggression, $B = 0.63, SE = 0.08, \beta = .31, t = 7.82, p < .001$, whereas greater self-compassion was associated with lower aggression, $B = -11.22, SE = 1.22, \beta = -.40, t = -9.20, p < .001$. When emotion dysregulation was entered in Model 2, the proportion of explained variance increased from 35% to 53%, representing an additional 18% of aggression variance, $\Delta R^2 = .18, \Delta F(1, 408) = 157.00, p < .001$. Emotion dysregulation emerged as the strongest predictor of aggression in the final model, $B = 0.46, SE = 0.04, \beta = .55, t = 12.53, p < .001, 95\% CI [0.39, 0.53]$. This result indicated that, while holding parental psychological control and self-compassion constant, each one-point increase in emotion dysregulation was associated

with an estimated 0.46-point increase in aggression. Importantly, the regression coefficient for parental psychological control decreased from $B = 0.63$ in Model 1 to $B = 0.29$ in Model 2, while the coefficient for self-compassion decreased in absolute magnitude from $B = -11.22$ to $B = -5.39$ after emotion dysregulation was included. Nevertheless, both direct effects remained statistically significant, with parental psychological control continuing to positively predict aggression, $\beta = .14, p < .001$, and self-compassion continuing to negatively predict aggression, $\beta = -.19, p < .001$. This attenuation of the direct effects after inclusion of emotion dysregulation was consistent with partial mediation and suggested that a substantial component of the relationship between the two predictors and aggression operated through adolescents' difficulties in regulating emotions.

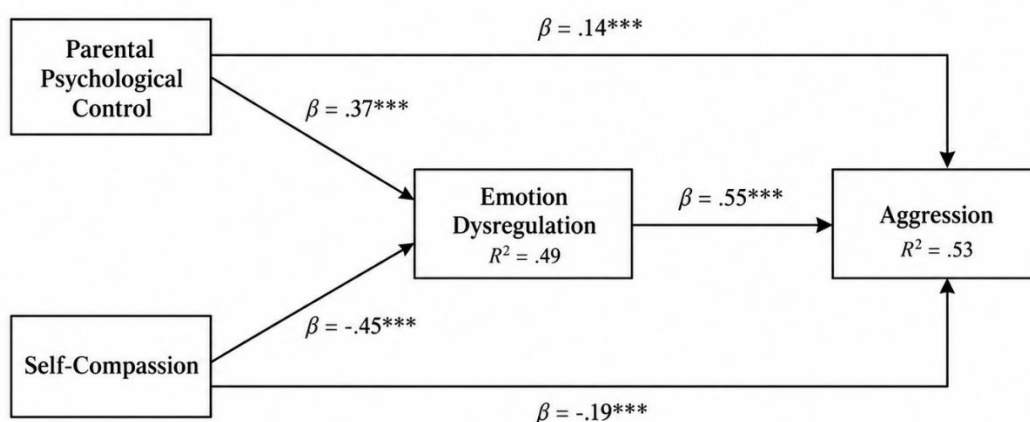
Table 4

Direct, Indirect, and Total Effects of Parental Psychological Control and Self-Compassion on Aggression Through Emotion Dysregulation

Predictor and Effect	Effect	Boot SE	95% Boot LLCI	95% Boot ULCI	Interpretation
Parental psychological control: total effect on aggression	0.63	0.08	0.47	0.79	Significant
Parental psychological control: direct effect on aggression	0.29	0.07	0.15	0.43	Significant
Parental psychological control → Emotion dysregulation → Aggression	0.40	0.05	0.31	0.50	Significant indirect effect
Self-compassion: total effect on aggression	-11.22	1.22	-13.62	-8.82	Significant
Self-compassion: direct effect on aggression	-5.39	1.09	-7.53	-3.25	Significant
Self-compassion → Emotion dysregulation → Aggression	-6.93	0.83	-8.63	-5.39	Significant indirect effect

Figure 1

Proposed and Tested Mediation Model of Parental Psychological Control and Self-Compassion Predicting Adolescent Aggression Through Emotion Dysregulation



The tested mediation model indicated that both parental psychological control and self-compassion were significantly associated with emotion dysregulation and that

emotion dysregulation was, in turn, strongly associated with aggression. The path from parental psychological control to emotion dysregulation was positive and statistically

significant, indicating that adolescents exposed to higher levels of guilt induction, emotional manipulation, invalidation, and other psychologically controlling parenting practices reported more severe difficulties in understanding and managing emotional responses. Conversely, the path from self-compassion to emotion dysregulation was negative and statistically significant, showing that adolescents who responded to personal distress with greater self-kindness, mindfulness, and recognition of shared human imperfection exhibited fewer emotion-regulation difficulties. Emotion dysregulation demonstrated a strong positive path to aggression after both parental psychological control and self-compassion were controlled. At the same time, the direct paths from parental psychological control and self-compassion to aggression remained significant but were substantially reduced in magnitude compared with their corresponding total effects. The pattern represented in the model therefore supported partial rather than complete mediation, indicating that emotion dysregulation constituted an important psychological mechanism through which both adverse parenting experiences and personal self-compassion were associated with aggressive tendencies among Nigerian adolescents.

The mediation results presented in Table 4 provided direct evidence for the mediating role of emotion dysregulation. The total effect of parental psychological control on aggression was positive and statistically significant, $B = 0.63$, 95% CI [0.47, 0.79]. After emotion dysregulation was introduced as the mediator, the direct effect remained significant but was reduced to $B = 0.29$, 95% CI [0.15, 0.43]. More importantly, the indirect effect of parental psychological control on aggression through emotion dysregulation was $B = 0.40$, Boot SE = 0.05, and its 95% bootstrap confidence interval ranged from 0.31 to 0.50. Because this confidence interval did not include zero, the indirect effect was statistically significant. This finding indicated that higher parental psychological control was associated with increased emotion dysregulation, which in turn was associated with higher aggression. Because the direct effect remained significant after inclusion of the mediator, emotion dysregulation partially mediated the relationship between parental psychological control and adolescent aggression.

A similar mediation pattern was observed for self-compassion. The total effect of self-compassion on aggression was negative and statistically significant, $B = -11.22$, 95% CI [-13.62, -8.82]. After accounting for emotion dysregulation, the direct effect of self-compassion decreased

in magnitude but remained statistically significant, $B = -5.39$, 95% CI [-7.53, -3.25]. The indirect effect of self-compassion on aggression through emotion dysregulation was $B = -6.93$, Boot SE = 0.83, with a 95% bootstrap confidence interval from -8.63 to -5.39. Because zero was not contained within this interval, the indirect effect was statistically significant. Thus, adolescents with higher self-compassion tended to report lower emotion dysregulation, and lower emotion dysregulation was subsequently associated with lower aggression. The persistence of a statistically significant direct relationship between self-compassion and aggression after the mediator was incorporated indicated partial mediation. Taken together, these results demonstrated that emotion dysregulation represented a significant mediating mechanism in both pathways examined in the study. Parental psychological control appeared to increase adolescents' vulnerability to aggression partly by undermining effective emotion regulation, whereas self-compassion appeared to function as a protective psychological resource partly by facilitating more adaptive regulation of distressing emotional experiences.

Overall, the findings supported the proposed conceptual framework. Parental psychological control was positively associated with aggression and emotion dysregulation, whereas self-compassion was negatively associated with both variables. Emotion dysregulation was the strongest proximal predictor of aggression in the final regression model and explained substantial additional variance beyond parental psychological control and self-compassion. The statistically significant bootstrap indirect effects further confirmed that emotion dysregulation partially mediated both the positive relationship between parental psychological control and aggression and the negative relationship between self-compassion and aggression. Accordingly, the findings suggest that adolescent aggression cannot be understood solely as a direct consequence of parenting practices or individual psychological resources; rather, the manner in which adolescents experience, understand, and regulate negative emotional states constitutes an important intervening process connecting these factors to aggressive behavior.

4. Discussion

The present study examined whether parental psychological control and self-compassion predicted aggression among Nigerian adolescents and whether

emotion dysregulation mediated these relationships. The findings provided consistent support for the proposed conceptual model. Parental psychological control was positively associated with both emotion dysregulation and aggression, whereas self-compassion was negatively associated with both variables. Emotion dysregulation demonstrated the strongest bivariate association with aggression and remained the strongest predictor of aggression in the final regression model after parental psychological control and self-compassion were controlled. In addition, the inclusion of emotion dysregulation substantially increased the proportion of explained variance in aggression, and the bootstrap analyses confirmed significant indirect effects for both parental psychological control and self-compassion. Because the direct effects of both predictors on aggression remained statistically significant after inclusion of emotion dysregulation, the pattern supported partial rather than complete mediation. These findings indicate that psychologically controlling parenting and adolescents' self-compassion are associated with aggressive tendencies both directly and indirectly through difficulties in regulating emotional experiences.

The positive relationship between parental psychological control and aggression is consistent with developmental perspectives suggesting that intrusive and coercive parenting practices can undermine adolescents' emotional autonomy and contribute to maladaptive behavioral responses. Psychological control differs from appropriate behavioral monitoring because it attempts to regulate the adolescent's internal world through strategies such as guilt induction, invalidation, emotional withdrawal, and manipulation. Such experiences may increase resentment, shame, frustration, hostility, and perceived interpersonal threat, all of which can increase the probability of aggressive responding. The present findings align with evidence showing that harsh childhood discipline is associated with developmental changes in adolescent aggressive behavior (Yang et al., 2023). They are also compatible with findings indicating that mindful and less coercive parenting may protect against maltreatment and aggressive behavior among adolescents (Yue et al., 2022). Taken together, these findings suggest that the manner in which parents exercise authority is important: parental involvement may be protective when it provides structure and emotional security, but psychologically intrusive control may become a risk factor when it compromises autonomy and emotional expression.

The finding that parental psychological control significantly predicted emotion dysregulation provides

additional insight into the mechanism underlying this association. Adolescents who experience psychologically controlling parenting may have fewer opportunities to identify, express, and manage their emotions autonomously. When emotional experiences are repeatedly criticized, dismissed, manipulated, or made contingent upon parental approval, adolescents may learn to suppress feelings, distrust their own emotional responses, or respond to distress impulsively. The present result is closely aligned with evidence showing that parental psychological control is linked with emotion-regulation difficulties and that these difficulties may form part of the pathway through which psychological control influences psychological maladjustment (Chen & Chen, 2025). Longitudinal dyadic findings also indicate that parent-child relationship processes, self-compassion, and difficulties in emotion regulation are dynamically related over time (Erdoğan et al., 2026). Therefore, the current findings extend this literature by suggesting that the regulatory consequences of psychologically controlling parenting may be relevant not only to internalizing outcomes such as depressive symptoms but also to outwardly directed behavioral outcomes such as aggression.

The significant negative relationship between self-compassion and aggression was another central finding. Adolescents with greater self-compassion reported lower levels of aggressive behavior, even after parental psychological control and emotion dysregulation were taken into account. This suggests that self-compassion may function as an important protective psychological resource. Self-compassion allows individuals to respond to personal failure, rejection, shame, frustration, or perceived inadequacy with kindness, balanced awareness, and recognition of shared human imperfection rather than with harsh self-criticism or over-identification with distress. Because aggression can emerge as a defensive response to perceived threat, humiliation, or emotional pain, a more compassionate self-response may reduce the need for externalizing distress through hostility or aggression. The present findings are consistent with evidence that self-compassion mediates the association between harsh discipline and adolescent aggressive behavior (Yang et al., 2023). They are also supported by research demonstrating that empathy and self-compassion are associated with prosocial and antisocial behavior in adolescents (Liu et al., 2023) and that self-compassion is positively related to prosocial behavior through empathy (Widyastuti & Savitri, 2023).

The negative association between self-compassion and emotion dysregulation was particularly strong and suggests that one of the principal mechanisms through which self-compassion may protect against aggression is improved regulation of emotional distress. Adolescents high in self-compassion may be more capable of acknowledging painful feelings without becoming overwhelmed by them, less likely to engage in severe self-criticism, and more able to maintain a balanced perspective during emotionally demanding situations. In contrast, adolescents with lower self-compassion may become caught in cycles of self-judgment, isolation, rumination, and emotional over-identification, thereby increasing dysregulation. The present finding is consistent with research showing that emotion regulation mediates the association between self-compassion and subjective well-being among secondary-school students (Koçak & Terzi, 2023). It is also in line with findings showing that self-compassion may influence adolescent mental health through emotion-regulation processes (Syafitri et al., 2024). Furthermore, the strong relationship between reversed self-compassion and symptoms of anxiety and depression among young people emphasizes the broader significance of maladaptive self-relating for emotional vulnerability (Muris et al., 2024).

The protective role of self-compassion is also supported by evidence from adolescents facing a range of adverse experiences. Self-compassion and mindfulness have been identified as explanatory mechanisms linking childhood psychological maltreatment and peer victimization with trauma-related symptoms (Wu et al., 2025). Self-compassion has also been implicated in adolescents' responses to cyber dating abuse and experiential avoidance (Wang et al., 2022), as well as in the association between relational aggression victimization and depressive outcomes (Nariswari & Muttaqin, 2023). Research on non-suicidal self-injury similarly suggests that self-compassion may moderate the relationship between emotional problems and harmful behavioral outcomes during adolescence (Xue et al., 2025). These studies collectively support the interpretation that self-compassion reduces vulnerability to maladaptive responses under conditions of interpersonal or emotional stress. The present study extends this pattern by showing that self-compassion is also inversely related to aggression and that this association is partly transmitted through lower emotion dysregulation.

The strongest relationship observed in the present study was between emotion dysregulation and aggression. Emotion dysregulation remained the most powerful

predictor of aggression in the final regression model, indicating that difficulties understanding, accepting, and managing emotional states constitute a central proximal factor in adolescent aggressive behavior. This result is theoretically plausible because aggression often occurs in situations characterized by anger, frustration, interpersonal provocation, perceived rejection, shame, or threat. Adolescents who cannot regulate these emotional states effectively may be more likely to act impulsively, interpret interpersonal events negatively, or use aggressive behavior as a means of discharging emotional arousal. Research has consistently linked adaptive emotional self-regulation with better psychological functioning and lower distress (Rech et al., 2023). Similarly, intervention studies indicate that improving emotion regulation through self-compassion-based approaches can enhance emotional and cognitive functioning among adolescents with high-risk behaviors (Jafari & Kiani, 2024; Shamsnajafi et al., 2023). Thus, the present findings support a view of aggression as partly rooted in deficits in emotional processing and regulation rather than being solely a behavioral or disciplinary problem.

The mediation results provide the most important contribution of the study. Emotion dysregulation significantly mediated the positive relationship between parental psychological control and aggression. This means that adolescents who perceived greater psychological control from parents tended to report more severe emotion-regulation difficulties, which in turn were associated with higher aggression. The remaining significant direct effect indicates that emotion dysregulation explains only part of this association and that other mechanisms may also be involved. These could include hostile attribution biases, reduced autonomy, low self-esteem, perceived rejection, insecure attachment, or learned coercive interaction patterns. Nevertheless, the indirect pathway observed here is strongly consistent with evidence that parental psychological control may exert its effects through emotion-regulatory mechanisms (Chen & Chen, 2025). It also accords with research emphasizing the role of family climate, mindfulness, and self-compassion in the intergenerational transmission of distress (Kwan et al., 2025). The findings therefore reinforce the need to understand aggressive behavior within a family–emotion interaction framework.

Emotion dysregulation also significantly mediated the negative association between self-compassion and aggression. Higher self-compassion was associated with lower emotion dysregulation, which was subsequently associated with lower aggression. This pathway provides a

plausible explanation for why self-compassion may reduce externalizing behavior. Self-compassion may help adolescents remain psychologically engaged with difficult emotions without becoming overwhelmed by them, reducing the likelihood that distress escalates into impulsive or hostile behavior. This explanation is consistent with evidence that self-compassion is intertwined with emotion regulation in both adolescent and family contexts (Erdinç et al., 2026; Koçak & Terzi, 2023). It is also supported by longitudinal work indicating that self-compassion can serve as a mediator in the transmission of psychological distress between parents and adolescents (Cherpe et al., 2025). Thus, self-compassion appears to operate not simply as a positive attitude toward oneself but as a regulatory resource that may influence how emotional distress is processed and expressed behaviorally.

The partial nature of both mediation effects is also theoretically meaningful. Parental psychological control continued to predict aggression even after emotion dysregulation was included, suggesting that psychologically controlling parenting may affect aggression through additional processes beyond regulation difficulties. Likewise, self-compassion retained a direct negative association with aggression, indicating that its protective role may extend beyond emotional regulation. Self-compassion may directly reduce hostile self-evaluation, defensive interpersonal responding, and retaliatory tendencies, while simultaneously increasing empathy and prosocial orientation. Findings demonstrating links between self-compassion, empathy, prosocial behavior, and antisocial behavior support this broader interpretation (Liu et al., 2023; Widyastuti & Savitri, 2023). Therefore, the current findings favor a multidimensional model in which emotion dysregulation is an important but not exclusive mechanism connecting family and intrapersonal factors to aggression.

The results also have implications for prevention and intervention. Evidence from compassion-focused interventions indicates that compassion-based approaches can produce beneficial outcomes in child and adolescent clinical populations (Roberts et al., 2026). Self-compassion training has also been shown to improve emotion regulation and cognitive flexibility in adolescents displaying self-harming behavior (Jafari & Kiani, 2024). Similarly, mindfulness-based family interventions highlight the potential value of simultaneously targeting child self-regulation and parenting processes (Zoller et al., 2026). These findings are relevant because the current model identifies both family-level and individual-level intervention

targets. Interventions focused solely on reducing aggression without addressing psychologically controlling family interactions or emotion-regulation difficulties may therefore overlook important causal or maintaining processes.

The findings should also be interpreted within the broader ecology of adolescent behavior. Aggression and victimization are influenced by interacting individual, family, peer, school, and digital-context factors, and contemporary network and ecological research emphasizes the complexity of adolescent risk pathways (Xie, 2026). Moral-development and youth intervention models likewise suggest that behavioral difficulties are best addressed through developmentally informed, context-sensitive approaches rather than through punitive responses alone (Trivedi-Bateman & Gadd, 2024). The current study adds to this perspective by demonstrating that aggression is associated simultaneously with a family relational factor, a self-relational protective resource, and a proximal emotional-regulation mechanism. Moreover, evidence on the importance of culturally valid assessment of childhood adversity reinforces the need to interpret such mechanisms within specific sociocultural environments (Tomoiağă & Iuga, 2026). In the Nigerian context, where family authority, interdependence, and expectations of obedience may have distinctive cultural meanings, distinguishing supportive guidance from psychologically intrusive control is particularly important.

It is also necessary to recognize that self-compassion is not experienced uniformly across individuals. Although the present findings support its protective role, some individuals may find self-compassion difficult, unfamiliar, or emotionally threatening, particularly when they have histories of invalidation or chronic self-criticism (Cai & Galvin, 2025). Research examining broader developmental correlates of compassion likewise suggests that self- and other-directed compassion are complex individual-difference constructs shaped by multiple developmental influences (Pihlaja et al., 2024).

5. Conclusion

Therefore, intervention programs designed to strengthen self-compassion among adolescents should be gradual, culturally sensitive, and attentive to individual differences in readiness and emotional safety rather than assuming that compassionate practices will be equally accessible to all participants.

6. Limitations & Suggestions

The present study has several limitations that should be acknowledged. First, the cross-sectional design prevents causal conclusions regarding the direction of the observed relationships; although the mediation model was theoretically grounded, temporal ordering among parental psychological control, self-compassion, emotion dysregulation, and aggression cannot be established definitively from data collected at one time point. Second, all principal variables were assessed using adolescent self-report measures, which may have increased common-method variance and may be influenced by social desirability, recall bias, or subjective interpretations of parental behavior. Third, although the sample included adolescents from both public and private secondary schools, the findings should not automatically be generalized to all Nigerian adolescents, particularly those who are out of school, living in highly disadvantaged settings, or experiencing severe family disruption. Fourth, potentially relevant contextual variables such as peer aggression, socioeconomic adversity, exposure to community violence, parental mental health, family conflict, and school climate were not incorporated into the model. Finally, aggression was analyzed primarily as an overall construct, and the relationships identified may differ across physical, verbal, anger-related, hostile, or relational forms of aggression.

Future research should employ longitudinal and prospective designs to clarify the temporal ordering of the proposed pathways and determine whether parental psychological control predicts subsequent increases in emotion dysregulation and aggression over time. Multi-informant designs incorporating reports from parents, teachers, and peers would help reduce reliance on adolescent self-report and permit more comprehensive assessment of both parenting practices and aggressive behavior. Future studies could also test more complex models that include moderators such as gender, age, socioeconomic status, family structure, peer victimization, attachment security, or school climate. It would be particularly useful to examine whether the mediating effect of emotion dysregulation differs across forms of aggression or whether additional mediators, such as self-esteem, shame, hostile attribution, empathy, or perceived rejection, operate alongside emotion dysregulation. Cross-cultural comparisons across Nigerian regions and between African and non-African samples would also help determine whether the magnitude and meaning of psychological control and self-compassion

pathways vary according to cultural norms surrounding parenting, autonomy, and emotional expression.

From a practical perspective, the findings support intervention strategies that simultaneously address parenting behavior, adolescents' emotion-regulation capacities, and self-compassion. School counselors, psychologists, and youth mental-health practitioners may benefit from incorporating emotion-identification, distress-tolerance, cognitive reappraisal, impulse-control, and self-compassion exercises into aggression-prevention programs. Parent-focused interventions should distinguish appropriate behavioral guidance from psychologically intrusive control and help caregivers use autonomy-supportive communication, consistent boundaries, emotional validation, and non-manipulative discipline. Schools could also implement structured social-emotional learning programs that teach adolescents how to respond to anger, rejection, frustration, and interpersonal conflict without resorting to aggression. For adolescents displaying persistent aggression, interventions that combine family-based work with individual emotion-regulation and self-compassion components may be particularly useful because the current findings suggest that aggressive behavior is maintained by interacting relational and intrapersonal processes rather than by a single isolated risk factor.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors equally contributed to this article.

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