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Risk and Protective Factors Associated with Adolescent Psychosocial Adjustment: The Roles of Adverse Childhood Experiences, Gratitude, and Self-Compassion among In-School Adolescents in Ibadan, Nigeria

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Abstract: *Adverse childhood experiences (ACEs) are well-established risk factors for adolescent psychosocial maladjustment, yet the extent to which dispositional psychological resources such as gratitude and self-compassion offset this risk remains underexplored in sub-Saharan African contexts. Anchored on salutogenic theory (Antonovsky, 1987), this study examined ACEs, gratitude, and self-compassion as correlates of psychosocial difficulties (primary outcome) and psychological wellbeing (secondary outcome) among adolescents in Ibadan, Nigeria. Using a cross-sectional survey design, 300 in-school adolescents (n = 111 males, n = 189 females; Mage = 15.98 years, SD = 1.47) were recruited via multistage sampling from three local government areas. Participants completed the Adverse Childhood Experiences Questionnaire (ACE-Q), the Gratitude Questionnaire-6 (GQ-6), the Self-Compassion Scale-Short Form (SCS-SF), the Strengths and Difficulties Questionnaire (SDQ), and the Ryff Psychological Wellbeing Scale (RYFF-18). Hierarchical regression analyses showed that, after controlling for age and gender, ACEs, gratitude, and self-compassion jointly explained 10.7% of the variance in psychosocial difficulties, $F(3, 294) = 11.50$, $p < .001$. ACEs emerged as the strongest risk factor ($\beta = .34$, $p < .001$), whereas self-compassion was a significant protective factor ($\beta = -.11$, $p = .049$). Gratitude was unexpectedly associated with greater difficulties ($\beta = .16$, $p = .006$). Subscale analyses indicated that ACEs were the strongest predictor of emotional symptoms, conduct problems, and reduced prosocial behaviour. The wellbeing model was modest ($R^2 = .038$, $p = .041$), with gratitude approaching significance ($\beta = .12$, $p = .051$). Findings highlight cumulative adversity as the primary driver of psychosocial maladjustment and identify self-compassion as a potentially valuable target for school-based mental health interventions.*

Keywords: adverse childhood experiences, self-compassion, gratitude, psychosocial difficulties, psychological wellbeing, adolescents, Nigeria

INTRODUCTION

Adolescence represents a developmentally sensitive period characterized by profound biological, cognitive, and psychosocial transitions that render individuals particularly vulnerable to both positive flourishing and adverse mental health outcomes (Steinberg, 2014). Globally, an estimated 10–20% of adolescents experience a mental health condition, with the majority of lifetime disorders having their onset before the age of 24 (Kessler et al., 2007; World Health Organization [WHO], 2021). In sub-Saharan Africa, these epidemiological figures are compounded by elevated exposure to adverse childhood experiences (ACEs), structural poverty, limited mental health resources, and the cultural stigmatization of psychological distress (Atwoli et al., 2015; Cortina et al., 2012). Despite growing global interest in adolescent mental health, empirical research from Nigerian contexts remains disproportionately scarce, particularly research that simultaneously examines positive psychological resources alongside adversity indicators within ecologically valid samples.

Two interconnected but conceptually distinct dimensions of adolescent mental health warrant examination: psychological wellbeing and psychosocial difficulties. Psychological wellbeing, within the eudaimonic tradition, refers to positive psychological functioning across dimensions including self-acceptance, personal growth, purpose in life, autonomy, environmental mastery, and positive relations with others (Ryff, 1989; Ryff & Keyes, 1995). Psychosocial difficulties, by contrast, capture internalizing and externalizing symptom burden, including emotional, conduct, hyperactivity, and peer-related problems (Goodman, 1997). Examining both outcomes within the same study permits a more complete portrait of adolescent mental health than either index alone provides, and guards against the conceptually problematic assumption that the absence of difficulty equates to the presence of flourishing (Keyes, 2005).

This study focuses on three theoretically grounded predictors: dispositional gratitude, self-compassion, and adverse childhood experiences. Gratitude is a positive moral emotion and stable dispositional tendency defined as a generalized readiness to recognize and respond with appreciation to the benevolence of others (McCullough et al., 2002). Within broaden-and-build theory (Fredrickson, 2001), gratitude functions as a positive emotion that expands an individual's momentary thought-action repertoire, building enduring personal, social, and psychological resources over time. Gratitude has been consistently associated with subjective wellbeing, positive affect, prosocial behaviour, and reduced depression and anxiety in Western samples (Emmons & McCullough, 2003; Wood et al., 2010). However, its role in the psychological wellbeing of African adolescents, where relational and collectivist cultural frameworks profoundly shape the emotional landscape, has received limited empirical attention.

Self-compassion, as conceptualized by Neff (2003), comprises three interrelated components: self-kindness (extending warmth toward oneself in moments of suffering), common humanity (recognizing that imperfection and struggle are shared human experiences), and mindfulness (holding painful thoughts and emotions in balanced awareness rather than over-identification or suppression). Self-compassion distinguishes itself from self-esteem by being non-contingent upon performance or social comparison, rendering it a psychologically robust resource that is associated with reduced psychological distress, greater emotional resilience, and more adaptive coping (Neff & Germer, 2013;

Zessin et al., 2015). In the adolescent developmental context, self-compassion may serve a particularly important buffering function given the heightened social comparison, identity experimentation, and self-critical cognition characteristic of this period (Bluth & Blanton, 2015).

Adverse childhood experiences encompass a broad constellation of stressful and traumatic exposures occurring before the age of 18, including emotional, physical, and sexual abuse; emotional and physical neglect; domestic violence; substance abuse and psychiatric conditions in the household; parental separation; and household incarceration (Felitti et al., 1998). The landmark ACE Study established dose-response relationships between cumulative ACE exposure and a wide array of negative health outcomes across the lifespan (Felitti et al., 1998). Subsequent research has confirmed these associations in diverse global contexts, including sub-Saharan Africa, where household instability, community violence, and economic adversity constitute particularly prevalent adversity profiles (Atwoli et al., 2015; Jewkes et al., 2016). Despite this evidence base, little research has examined how ACEs intersect with positive psychological resources such as gratitude and self-compassion in predicting Nigerian adolescent wellbeing. Although most ACE research has focused on the emergence of psychological symptoms, there is increasing recognition that childhood adversity may also compromise positive developmental competencies, including empathy, cooperation, and prosocial behaviour, which are critical for successful adolescent adaptation.

The theoretical integration of these constructs is anchored in salutogenic theory (Antonovsky, 1987), which reframes the central question of health research from "what causes disease?" to "what enables people to maintain wellbeing despite exposure to stressors?" Within this framework, ACEs represent cumulative stressor load, while gratitude and self-compassion represent generalized resistance resources (GRRs) i.e. dispositional, psychological assets that individuals draw upon to manage stress and sustain functioning. Salutogenesis is particularly well suited to the present study because it accommodates risk (ACEs), resources (gratitude, self-compassion), and multiple outcomes (psychosocial difficulties and psychological wellbeing) within a single coherent model, without requiring the assumption that the absence of difficulty is equivalent to the presence of wellbeing. Two complementary frameworks enrich this salutogenic core. Fredrickson's (2001) broaden-and-build theory specifies a mechanism by which positive emotions such as gratitude may build durable psychological resources over time, while self-determination theory (Deci & Ryan, 2000) clarifies how self-compassion supports the satisfaction of basic psychological needs for autonomy, competence, and relatedness that underlie adaptive functioning. Together, these frameworks converge on a risk-and-resource model in which ACEs elevate psychosocial difficulties while gratitude and self-compassion function as protective generalized resistance resources.

The present study makes several distinct contributions to the existing literature. First, it provides one of the few empirically rigorous examinations of gratitude, self-compassion, and ACEs as simultaneous predictors of adolescent mental health in a Nigerian sample. Second, it employs hierarchical multiple regression to assess the unique variance explained by each predictor above and beyond demographic covariates. Third, it simultaneously examines both psychological wellbeing and psychosocial difficulties as outcome variables, enabling a more comprehensive and nuanced characterization of adolescent mental health. Fourth, it situates findings within culturally relevant theoretical frameworks, including consideration of the ways in which collectivist values and relational self-construals in the Yoruba cultural context may shape the expression and protective function of gratitude and self-compassion.

Study Aims and Objectives

The present study aimed to (1) determine the unique predictive contributions of ACEs, gratitude, and self-compassion to adolescent psychosocial difficulties (primary outcome) and psychological wellbeing (secondary outcome), after controlling for gender and age; (2) examine whether ACEs, gratitude, and self-compassion are differentially associated with maladaptive outcomes (emotional, conduct, hyperactivity, and peer difficulties) and positive social functioning (prosocial behaviour); (3) examine bivariate associations among all study variables; and (4) assess gender and age group differences in psychosocial difficulties and psychological wellbeing.

Research Hypotheses

H1: ACEs, gratitude, and self-compassion will predict adolescent psychosocial difficulties after controlling for age and gender, with ACEs positively associated with difficulties and self-compassion negatively associated with difficulties.
H2: ACEs, gratitude, and self-compassion will predict adolescent psychological wellbeing after controlling for age and gender.
H3: ACEs, gratitude, and self-compassion will show differential associations with the dimensions of psychosocial adjustment assessed by the SDQ.
H4: Psychological wellbeing and psychosocial difficulties will not differ significantly between male and female adolescents.
H5: Psychological wellbeing and psychosocial difficulties will not differ significantly across age groups.

Gratitude and Adolescent Psychological Wellbeing

The empirical literature on dispositional gratitude and adolescent wellbeing has expanded considerably over the past two decades, though the preponderance of studies have been conducted in North American and European samples. Froh et al. (2011) demonstrated, in a large American adolescent sample, that dispositional gratitude was associated with higher life satisfaction, greater positive affect, and stronger social integration, with gratitude uniquely predicting wellbeing after controlling for other positive traits. Sun et al. (2021) conducted a meta-analysis of 47 studies and confirmed moderate positive associations between gratitude and subjective wellbeing (r = .38) across diverse populations, with the relationship moderated by age and cultural context. Notably, studies from collectivist cultures report somewhat attenuated gratitude-wellbeing associations compared to individualist cultures, potentially reflecting the more relational and obligatory character of gratitude in interdependent cultural contexts (Layous et al., 2013), an observation directly germane to a Nigerian sample.

Within the broader African literature, empirical research on adolescent gratitude remains nascent relative to the depth of the Western evidence base. The meta-analytic work of Sun et al. (2021) found that the gratitude-wellbeing association, while robust overall, is moderated by cultural context, with somewhat attenuated effect sizes in collectivist relative to individualist samples; a pattern consistent with Layous et al.'s (2013) finding that the psychological benefits of gratitude-based activities vary by cultural background. In Nigeria specifically, gratitude has rarely been examined in adolescent samples using validated psychometric instruments such as the GQ-6. This lacuna is significant given that the expression and experience of gratitude among Nigerian adolescents may be shaped by Yoruba cultural

frameworks particularly the concept of *iyin* (praise and appreciation as social obligation) in ways that may differentiate its psychological function from Western conceptualizations.

Self-Compassion and Adolescent Wellbeing

Self-compassion has emerged as one of the most robust predictors of psychological health in the adolescent literature. Zessin et al. (2015) conducted a meta-analysis of 79 studies and found a large effect of self-compassion on wellbeing (r = .47), with comparable effects across self-reported and observer-rated wellbeing measures. Importantly, self-compassion was associated with both eudaimonic wellbeing (as measured by Ryff's scales) and hedonic wellbeing indicators, demonstrating its cross-paradigmatic relevance. Bluth and Blanton (2015) demonstrated, in a sample of American middle school students, that self-compassion was associated with significantly greater wellbeing and meaningfulness, with the association stronger for older adolescents facing greater peer evaluation pressures. These findings suggest that self-compassion may be particularly relevant during the developmental window when self-critical and evaluative cognitions are most pronounced.

Research on self-compassion and psychosocial difficulties has similarly yielded robust findings. MacBeth and Gumley (2012) meta-analysed 14 studies and found a large negative correlation between self-compassion and common mental health outcomes, including depression, anxiety, and stress (r = −.54). Neff and McGehee (2010) demonstrated that self-compassion was negatively associated with anxiety and depression among adolescents and young adults, with the relationship partially mediated by positive emotions and resilience. In African contexts, Umeh and Onuigbo (2021) examined self-compassion among Nigerian university students and found significant negative associations with psychological distress, while Mutambara et al. (2021) documented similar patterns among Zimbabwean adolescents. These cross-cultural studies provide a foundation for expecting self-compassion to exert protective effects on psychosocial outcomes in the present Nigerian adolescent sample.

Adverse Childhood Experiences and Adolescent Mental Health

The association between cumulative ACE exposure and adverse mental health outcomes is among the most robustly replicated findings in developmental psychopathology. Felitti et al.'s (1998) original study of over 17,000 adults demonstrated graded dose-response relationships between ACE scores and depression, substance use, suicide attempts, and general health impairment. Subsequent longitudinal work has confirmed that ACE exposure in childhood predicts both internalizing problems (depression, anxiety) and externalizing problems (conduct disorder, aggression) in adolescence (Norman et al., 2012; Schilling et al., 2008). Importantly, ACEs do not operate through a single pathway but accumulate biologically, psychologically, and socially, disrupting neural stress response systems, impairing emotion regulation, and eroding the quality of attachment relationships (Shonkoff et al., 2012).

In sub-Saharan Africa, ACE prevalence is particularly elevated. A multi-country study by Jewkes et al. (2016) found that over 60% of African adolescents reported at least one ACE, with physical abuse and domestic violence being the most commonly reported. Despite this documented burden, Nigerian research has rarely examined ACEs using validated instruments within prediction frameworks, and the

relationship between ACEs and both standardized psychosocial difficulties measures and eudaimonic wellbeing measures remains understudied. The present study addresses this gap directly.

Gender, Age, and Adolescent Wellbeing

Evidence regarding gender differences in adolescent psychosocial adjustment is mixed. With respect to psychosocial difficulties, prior research suggests adolescent girls report higher rates of internalizing problems while boys exhibit more externalizing difficulties (Costello et al., 2003), though aggregate Total Difficulties scores on instruments such as the SDQ often do not differ significantly by gender once internalizing and externalizing subscales are combined (Goodman et al., 2000). With respect to psychological wellbeing, several Western studies report lower wellbeing among adolescent girls relative to boys, particularly in measures of self-acceptance and personal growth (Kling et al., 1999), but these differences are often small and attenuate or disappear when controlling for social desirability and structural disadvantage. Nigerian research on mental health among young people has, in some instances, identified female gender as a risk factor for internalizing symptoms such as depression (Adewuya et al., 2006), though findings across the broader Nigerian adolescent literature remain mixed, suggesting that the gender-adjustment relationship may be moderated by socio-cultural context, particularly in societies where adolescent gender role socialization patterns differ markedly from Western norms.

Regarding age, Ryff's theoretical framework predicts that dimensions of wellbeing such as autonomy, environmental mastery, and purpose in life should increase across adulthood (Ryff, 1989). Within adolescence, however, the trajectory is less clear, with some studies reporting minimal age-related variation in overall PWB within the secondary school age range (Freire et al., 2016). Similarly, psychosocial difficulties may fluctuate across early-to-mid adolescence in response to developmental challenges rather than following a simple linear trajectory (Achenbach et al., 2008).

METHOD

Research Design and Setting

The study employed a cross-sectional survey design. Data were collected from in-school adolescents in Ibadan metropolis, the capital of Oyo State and the third-largest city in Nigeria. Ibadan is characterized by a diverse urban population, mixed socioeconomic profiles, and a well-established secondary school infrastructure, making it an appropriate setting for generalizable research within the South-western Nigerian adolescent population.

Participants and Sampling

A total of 300 in-school adolescents (n = 111 males [37.0%], n = 189 females [63.0%]) participated in the study. Participants ranged in age from 12 to 20 years (M = 15.98, SD = 1.47). The broad age range reflects delayed school entry, grade repetition, and interruptions in educational progression that are not uncommon in the Nigerian educational context. Multistage cluster sampling was employed. In the first stage, three Local Government Areas (LGAs) were randomly selected from Ibadan metropolis: Akinyele, Ibadan Southwest, and Ibadan North. In the second stage, two secondary schools were randomly selected from each LGA, yielding six schools. In the third stage, all SS1 students in each

school who met eligibility criteria were invited to participate. Eligibility criteria required participants to be enrolled in secondary school and aged between 12 and 20 years. Participants who declined to provide signed parental consent or who returned substantially incomplete questionnaires (>20% missing on any scale) were excluded.

With respect to religious affiliation, 163 participants (54.3%) identified as Muslim and 133 (44.3%) as Christian, with 4 (1.3%) identifying as other. Regarding ethnicity, 254 (84.7%) were Yoruba, 27 (9.0%) Igbo, 10 (3.3%) Hausa, and 9 (3.0%) other. In terms of family structure, 171 (57.0%) were from monogamous households, 119 (39.7%) from polygamous households, and 10 (3.3%) from step-family arrangements. By age group, 96 participants (32.0%) were below 15 years, 167 (55.7%) were 15–17 years, and 37 (12.3%) were 18 years and above.

Measures

Psychological Wellbeing

Eudaimonic psychological wellbeing was assessed using the Ryff Scales of Psychological Well-Being Short Form (RYFF-18; Ryff & Keyes, 1995). This 18-item instrument measures six theoretically grounded dimensions of wellbeing: Autonomy (3 items), Environmental Mastery (3 items), Personal Growth (3 items), Positive Relations with Others (3 items), Purpose in Life (3 items), and Self-Acceptance (3 items). Items are rated on a 6-point Likert scale from 1 (strongly disagree) to 6 (strongly agree), with negative items reverse-scored. A composite total score was computed by summing all 18 items, with higher scores indicating greater psychological wellbeing. The RYFF-18 has demonstrated acceptable to good reliability and factorial validity across diverse cultural contexts (Clarke et al., 2001). Internal consistency in the present study was $\alpha = .83$.

Psychosocial Difficulties

Psychosocial difficulties were assessed using the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997), a widely used 25-item mental health screening instrument. Items are rated on a 3-point scale (0 = not true, 1 = somewhat true, 2 = certainly true). The SDQ yields five subscale scores-Emotional Symptoms, Conduct Problems, Hyperactivity/Inattention, Peer Problems, and Prosocial Behaviour as well as a Total Difficulties score, computed as the sum of all subscales excluding Prosocial Behaviour. Higher Total Difficulties scores indicate greater psychosocial symptom burden. The SDQ has demonstrated acceptable psychometric properties among Nigerian adolescents, with recent evidence supporting a modified five-factor structure and measurement invariance across demographic groups (Katus et al., 2025). Internal consistency in the current study was $\alpha = .72$.

Dispositional Gratitude

Gratitude was measured using the Gratitude Questionnaire-6 (GQ-6; McCullough et al., 2002), a six-item self-report scale assessing dispositional gratitude. Items are rated on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree), with two negatively worded items reverse-scored so that higher scores reflect greater dispositional gratitude. Example items include “I am grateful to a wide variety of people” and “Long amounts of time can pass before I feel grateful to something or someone.” The GQ-6 has demonstrated good convergent and discriminant validity across diverse samples (Wood

et al., 2008). Internal consistency in the present study was α = .65, consistent with values reported in non-Western samples (McCullough et al., 2002).

Self-Compassion

Self-compassion was assessed using the Self-Compassion Scale-Short Form (SCS-SF; Raes et al., 2011), a 12-item measure assessing self-kindness, common humanity, and mindfulness as components of self-compassion, alongside their self-critical counterparts (self-judgment, isolation, and over-identification). Items are rated on a 5-point Likert scale from 1 (almost never) to 5 (almost always), with negative component items reverse-scored, and a total self-compassion score computed. The SCS-SF has demonstrated adequate reliability and validity across cultural samples, with reliability estimates ranging from α = .55 to .81 reported in the original validation (Raes et al., 2011). Internal consistency in the present study was α = .55, which falls within the lower bound of the range reported by Raes et al. (2011) and reflects a known limitation of the SCS-SF in non-Western samples, discussed further in the limitations section.

Adverse Childhood Experiences

Adverse childhood experiences were assessed using the Adverse Childhood Experiences Questionnaire (ACE-Q; Felitti et al., 1998), a 22-item instrument assessing ten categories of childhood adversity: emotional abuse, physical abuse, sexual violence, emotional neglect, physical neglect, parental separation, domestic violence, household substance abuse, household psychiatric problems, and household incarceration. Items were rated on a 5-point frequency scale from 0 (never) to 4 (going on at the moment), and a composite ACE total score was derived by summing all item responses, with higher scores indicating greater cumulative adversity exposure. Internal consistency in the present study was excellent (α = .92).

Procedure

Ethical clearance for the study was obtained from the University of Ibadan Social sciences and Humanities Research Ethics Committee (UI/SSHREC/2023/0144) institutional ethics board prior to data collection. Approval was subsequently secured from the principals and designated school counsellors in each participating school. Students in eligible classes were briefed on the study's purpose, voluntary nature, and confidentiality protections. Informed assent forms were distributed to interested students, who were instructed to return them with signed parental consent forms prior to participation. On the appointed data collection day, only students who returned completed consent forms were administered the questionnaire battery. Questionnaires were administered in supervised classroom settings with the assistance of trained research assistants and school teachers, who provided clarification of items as needed without influencing responses. Completed questionnaires were retrieved immediately upon completion. The entire procedure took approximately 35–45 minutes per class.

Data Analysis

Data were screened for missing values, outliers, and assumption violations prior to analysis. There were no missing values on the primary study variables. Descriptive statistics and Cronbach's alpha reliability coefficients were computed for all scales. Bivariate Pearson correlations were computed

among all study variables. Hierarchical multiple regression was employed as the primary analytic strategy to test H1 and H2. In Step 1, demographic variables (gender, coded as 0 = male, 1 = female; age, continuous) were entered as control variables. In Step 2, the three psychological predictors (gratitude, self-compassion, ACEs) were entered simultaneously. The incremental F-test (ΔF) was used to evaluate whether Step 2 predictors accounted for significant additional variance above and beyond demographics. Standardized (β) and unstandardized (*B*) regression coefficients were reported alongside standard errors, *t* statistics, and 95% confidence intervals. Independent samples *t*-tests with Cohen's *d* effect size estimates were used to test H4, and one-way analysis of variance (ANOVA) with eta-squared (η^2) effect sizes was used to test H5. All analyses were conducted in IBM SPSS Statistics Version 24. Two-tailed tests were used throughout, with statistical significance evaluated at $p < .05$.

RESULTS

Preliminary Analyses

Table 1 presents descriptive statistics and bivariate intercorrelations among all study variables. Mean scores were as follows: ACEs (*M* = 12.88, *SD* = 12.23), Gratitude (*M* = 28.53, *SD* = 6.87), Self-Compassion (*M* = 24.42, *SD* = 6.71), SDQ Total Difficulties (*M* = 17.88, *SD* = 5.84), and Psychological Wellbeing-RYFF-18 (*M* = 55.29, *SD* = 18.88). Internal consistency reliability was acceptable to excellent across all measures: ACE-Q α = .92, SDQ α = .72, RYFF-18 α = .83, GQ-6 α = .65, and SCS-SF α = .55. Inspection of the correlation matrix revealed that ACEs were significantly and negatively associated with gratitude ($r = -.24$, $p < .001$) and positively associated with self-compassion ($r = .25$, $p < .001$). ACEs were positively associated with SDQ Total Difficulties ($r = .26$, $p < .001$), while self-compassion was positively associated with psychological wellbeing ($r = .11$, $p = .048$). Psychological wellbeing and SDQ Total Difficulties were also positively correlated ($r = .15$, $p = .008$). Despite its small magnitude, the association indicates that psychological wellbeing and psychosocial difficulties were not inversely related in this sample.

Table 1
Descriptive Statistics and Intercorrelations among Study Variables (N = 300)

Variable	*M*	*SD*	1	2	3	4
1. Gratitude	28.53	6.87	—			
2. Self-Compassion	24.42	6.71	−.03	—		
3. ACEs	12.88	12.23	−.24***	.25***	—	
4. PWB	55.29	18.88	.09	.11*	.11	—
5.SDQTotal Difficulties	17.88	5.84	.08	−.04	.26***	.15**

Note. ACEs = Adverse Childhood Experiences; PWB = Psychological Wellbeing; SDQ = Strengths and Difficulties Questionnaire. Cronbach's α values: Gratitude = .65; Self-Compassion = .55; ACEs = .92; PWB = .83; SDQ = .72.
*p < .05. **p < .01. ***p < .001.

Multicollinearity and Regression Assumption Diagnostics

Prior to interpreting the regression models, standard assumption checks were conducted. Multicollinearity diagnostics indicated no concerns: variance inflation factors (VIFs) for all predictors ranged from 1.00 to 1.17, and tolerance values ranged from .86 to 1.00 (all VIFs < 2.0; tolerance > .50), indicating that gender, age, gratitude, self-compassion, and ACEs each contributed independent variance to the models. Examination of standardized residual and residual-versus-fitted plots for the SDQ Total Difficulties model indicated that the assumption of homoscedasticity was met, a conclusion supported by a non-significant Breusch–Pagan test, $\chi^2(5) = 2.70$, $p = .746$. Residuals showed a mild positive skew (skewness = 0.40, kurtosis = 1.00), and the Shapiro–Wilk test was statistically significant, $W = .984$, $p = .002$, indicating a modest departure from normality. Given the large sample size ($N = 300$), the central limit theorem supports the robustness of ordinary least squares estimates to this degree of non-normality (Lumley et al., 2002), and no transformation of the outcome variable was applied. The Durbin–Watson statistic ($d = 2.08$) indicated no evidence of autocorrelated residuals.

Hypothesis 1: Predictors of Psychosocial Difficulties (SDQ Total Difficulties)

Table 2 presents results of the hierarchical regression predicting SDQ Total Difficulties, the primary outcome of this study. In Step 1, demographic controls accounted for a non-significant proportion of variance, $R^2 = .002$, $F(2, 297) = 0.24$, $p = .789$. Step 2 produced a substantial and highly significant increment, $\Delta R^2 = .105$, $\Delta F(3, 294) = 11.50$, $p < .001$, yielding a total model $R^2 = .107$, Adj. $R^2 = .091$, $F(5, 294) = 7.01$, $p < .001$. H1 was thus strongly supported. As hypothesized, ACEs emerged as the dominant predictor ($\beta = .34$, $B = 0.16$, 95% CI [0.10, 0.22], $t = 5.66$, $p < .001$), and self-compassion was a significant negative (protective) predictor ($\beta = -.11$, $B = -0.10$, 95% CI [−0.20, −0.00], $t = -1.98$, $p = .049$), exactly as predicted. Contrary to expectation, gratitude was also a significant positive predictor of difficulties ($\beta = .16$, $B = 0.13$, 95% CI [0.04, 0.23], $t = 2.77$, $p = .006$). Together, ACEs and self-compassion produced the theoretically expected risk-protective pattern central to H1, while the gratitude finding add nuance addressed below.

Table 2
Hierarchical Multiple Regression Predicting Psychosocial Difficulties (SDQ Total Difficulties) (N = 300)

Predictor	*B*	SE B	β	*T*	95% CI	*p*
Step 1						
Gender[a]	0.62	0.67	.05	0.93	[−0.70, 1.94]	.355
Age	0.17	0.22	.04	0.78	[−0.27, 0.60]	.436
Model: R^2 = .002, Adj. R^2 = −.005, F(2, 297) = 0.24, p = .789						
Step 2						
Gender[a]	0.65	0.68	.05	0.96	[−0.68, 1.98]	.337
Age	0.17	0.22	.04	0.76	[−0.27, 0.60]	.450
Gratitude	0.13	0.05	.16	2.77	[0.04, 0.23]	.006
Self-Compassion	−0.10	0.05	−.11	−1.98	[−0.20, −0.00]	.049
ACEs	0.16	0.03	.34	5.66	[0.10, 0.22]	< .001
Model: R^2 = .107, Adj. R^2 = .091, F(5, 294) = 7.01, p < .001; ΔR^2 = .105, ΔF(3, 294) = 11.50, p < .001						

Note. B = unstandardized coefficient; SE B = standard error of B; β = standardized coefficient; CI = confidence interval; ACEs = Adverse Childhood Experiences; SDQ = Strengths and Difficulties Questionnaire. [a]Gender coded 0 = Male, 1 = Female.

Hypothesis 2: Predictors of Psychological Wellbeing (RYFF-18)

Table 3 presents results of the hierarchical regression predicting psychological wellbeing, the secondary outcome of this study. In Step 1, gender and age together did not significantly predict psychological wellbeing, R^2 = .010, Adj. R^2 = .003, F(2, 297) = 1.42, p = .242. In Step 2, the addition of gratitude, self-compassion, and ACEs produced a significant increment in explained variance, ΔR^2 = .029, ΔF(3, 294) = 2.95, p = .033, bringing the total model to R^2 = .038, Adj. R^2 = .022, F(5, 294) = 2.35, p = .041. H2 was partially supported, though the proportion of variance explained was modest. Among individual predictors, gratitude approached significance as a predictor of psychological wellbeing (β = .12, B = 0.32, 95% CI [−0.00, 0.64], t = 1.96, p = .051). Self-compassion (β = .09, p =

.139) and ACEs (β = .10, *p* = .106) did not reach individual significance, despite ACEs being the dominant predictor of psychosocial difficulties in the SDQ model above.

Table 3
Hierarchical Multiple Regression Predicting Psychological Wellbeing (RYFF-18) (N = 300*)*

Predictor	***B***	**SE B**	**β**	***T***	**95% CI**	***P***
Step 1						
Gender[a]	−3.38	2.26	−.07	−1.50	[−7.82, 1.06]	.135
Age	−0.57	0.74	−.04	−0.77	[−2.04, 0.89]	.440
Model: R^2 = .010, Adj. R^2 = .003, F(2, 297) = 1.42, p = .242						
Step 2						
Gender[a]	−2.65	2.27	−.07	−1.17	[−7.11, 1.81]	.243
Age	−0.49	0.74	−.04	−0.66	[−1.94, 0.96]	.510
Gratitude	0.32	0.16	.12	1.96	[−0.00, 0.64]	.051
Self-Compassion	0.25	0.17	.09	1.48	[−0.08, 0.58]	.139
ACEs	0.15	0.10	.10	1.62	[−0.03, 0.34]	.106
Model: R^2 = .038, Adj. R^2 = .022, F(5, 294) = 2.35, p = .041; ΔR^2 = .029, ΔF(3, 294) = 2.95, p = .033						

Note. B = unstandardized coefficient; SE B = standard error of B; β = standardized coefficient; CI = confidence interval; ACEs = Adverse Childhood Experiences. [a]Gender coded 0 = Male, 1 = Female.

Hypothesis 3: SDQ Subscale Analyses

To examine which specific dimensions of psychosocial adjustment were most strongly associated with each predictor, separate hierarchical regressions were conducted for each SDQ subscale (Emotional Symptoms, Conduct Problems, Hyperactivity/Inattention, Peer Problems, and Prosocial Behaviour); standardized Step 2 coefficients are presented in Table 4. As hypothesized, ACEs were the strongest predictor of both Emotional Symptoms (β = .34, *p* < .001) and Conduct Problems (β = .36, *p* < .001), with smaller but significant associations with Hyperactivity/Inattention (β = .12, *p* = .043) and Peer

Problems (β = .12, *p* = .048). ACEs were also the strongest negative predictor of Prosocial Behaviour (β = −.27, *p* < .001), indicating that adolescents with higher cumulative adversity exhibited markedly lower prosocial functioning. As hypothesized, self-compassion showed its strongest protective association with Peer Problems (β = −.21, p < .001) and was also significantly and negatively associated with Prosocial Behaviour (β = −.19, p < .001). Self-compassion was not significantly associated with Emotional Symptoms, Conduct Problems, or Hyperactivity/Inattention (all *p*s > .22). Gratitude showed its strongest positive associations with Prosocial Behaviour (β = .19, *p* < .001), Hyperactivity/Inattention (β = .18, *p* = .002), and Peer Problems (β = .17, *p* = .004), and was not significantly associated with Emotional Symptoms (β = .11, *p* = .052) or Conduct Problems (β = −.00, *p* = .945). H3 was thus largely supported for ACEs and self-compassion, while the gratitude pattern was strongest for Prosocial Behaviour but also positively associated with Hyperactivity/Inattention and Peer Problems.

Table 4
Standardized Regression Coefficients (β) for Predictors of SDQ Subscales, Step 2 (N = 300)

Predictor	Emotional Symptoms	Conduct Problems	Hyperactivity/ Inattention	Peer Problems	Prosocial Behaviour
Gender[a]	.13*	−.05	.05	.00	−.07
Age	.01	−.04	.12*	.03	.04
Gratitude	.11	−.00	.18**	.17**	.19***
Self-Compassion	.00	−.07	−.07	−.21***	−.19***
ACEs	.34***	.36***	.12*	.12*	−.27***
Model R^2 (Step 2)					
	.113***	.131***	.054**	.068***	.199***

Note. Values are standardized (β) coefficients from Step 2 of hierarchical regressions including gender, age, gratitude, self-compassion, and ACEs as simultaneous predictors. ACEs = Adverse Childhood Experiences; SDQ = Strengths and Difficulties Questionnaire. [a]Gender coded 0 = Male, 1 = Female.
*p < .05. **p < .01. ***p < .001.

Among all subscale findings, the association between ACEs and reduced prosocial behaviour (β = −.27) was one of the largest effects observed, second only to the associations between ACEs and emotional and conduct problems.

Hypotheses 4 and 5: Gender and Age Group Differences

Table 5 presents gender and age group comparisons for both outcomes. Consistent with H4, there were no statistically significant gender differences in psychosocial difficulties, *t*(298) = −0.06, *p* = .950, *d* = .01, or psychological wellbeing, *t*(298) = 1.50, *p* = .135, *d* = .18. Consistent with H5, age group (< 15, 15–17, ≥ 18 years) did not significantly predict psychosocial difficulties, *F*(2, 297) = 0.30, *p* =

.738, $\eta^2 = .002$, or psychological wellbeing, $F(2, 297) = 0.33$, $p = .717$, $\eta^2 = .002$. All effect sizes were trivially small.

Table 5
Gender and Age Group Differences in Psychological Wellbeing and Psychosocial Difficulties

	n	*M*	*SD*	t / F	df	*p*	d / η^2
Psychological Wellbeing							
Male	111	57.42	17.88	1.50	298	.135	d = .18
Female	189	54.04	19.39				
< 15 years	96	56.24	18.16	0.33	2, 297	.717	η^2 = .002
15–17 years	167	55.20	18.93				
≥ 18 years	37	53.27	20.81				
Psychosocial Difficulties (SDQ)							
Male	111	17.86	5.57	−0.06	298	.950	d = .01
Female	189	17.90	6.01				
< 15 years	96	17.50	5.62	0.30	2, 297	.738	η^2 = .002
15–17 years	167	18.05	5.82				
≥ 18 years	37	18.11	6.34				

Note. Gender differences tested using independent samples *t*-test; age group differences tested using one-way ANOVA. SDQ = Strengths and Difficulties Questionnaire. Effect sizes: Cohen's *d* for gender, eta-squared (η^2) for age.

DISCUSSION

This study examined ACEs, gratitude, and self-compassion as correlates of adolescent psychosocial difficulties (primary outcome) and psychological wellbeing (secondary outcome) among 300 in-school adolescents in Ibadan, Nigeria, within a salutogenic framework (Antonovsky, 1987) in which ACEs represent cumulative stressor load and gratitude and self-compassion represent generalized resistance resources. Using hierarchical multiple regression with demographic controls, the three-predictor model accounted for a substantial and highly significant increment in variance in psychosocial difficulties, and a smaller but significant increment in psychological wellbeing. The pattern of findings for the

primary outcome was theoretically coherent and consistent with a risk-and-resource model: ACEs functioned as the dominant risk factor, and self-compassion functioned as a discrete protective resource. The gratitude findings were more complex and are addressed in detail below. These results presents concrete implications for school-based counselling practice and policy in Nigerian secondary education.

ACEs as the Primary Predictor of Psychosocial Difficulties

The most robust and clinically significant finding of this study was the strong predictive effect of ACEs on psychosocial difficulties ($\beta = .34$, $p < .001$), which accounted for the dominant share of the variance explained by the predictors in the SDQ model. This finding is entirely consistent with the foundational ACE research literature. Felitti et al. (1998) demonstrated dose-response relationships between cumulative ACE exposure and a broad range of health and mental health outcomes, and subsequent meta-analytic work has confirmed that ACEs confer elevated risk for both internalizing and externalizing psychopathology across diverse populations (Norman et al., 2012; Shonkoff et al., 2012). The present study extends this evidence base to a Nigerian adolescent sample, confirming that the ACE-adversity relationship is not culturally circumscribed to Western contexts.

The mean ACE score in this sample ($M = 12.88$) reflects a noteworthy cumulative adversity burden, with emotional abuse ($M = 2.23$) and physical abuse ($M = 1.91$) being the most prevalent ACE subtypes. These patterns echo findings from prior West African studies documenting high rates of physical and emotional maltreatment within familial contexts (Jewkes et al., 2016), and they underscore the importance of ACE-informed screening in Nigerian secondary schools. By contrast, the comparatively weaker relationship between ACEs and RYFF-based psychological wellbeing is noteworthy but not inconsistent with the literature. RYFF's eudaimonic wellbeing captures stable dispositional orientations (sense of purpose, personal growth, autonomy) rather than current symptom state, and there is evidence that these dimensions may be sustained by active meaning-making and social support even under conditions of adversity (Keyes, 2005; Ryff, 1989). The SDQ Total Difficulties score, which captures active symptom burden, proved considerably more sensitive to ACE effects, reinforcing the decision to treat psychosocial difficulties as the primary outcome of this study.

An especially noteworthy finding was that ACEs emerged as the strongest negative predictor of prosocial behaviour ($\beta = -.27$, $p < .001$). While the association between childhood adversity and psychopathology is well established, the finding that cumulative adversity is also linked to reduce prosocial functioning suggests that ACEs undermine not only adolescents' psychological adjustment but also their capacity for positive social engagement. Prosocial behaviours such as helping, sharing, cooperating, and showing concern for others are central developmental competencies that facilitate peer acceptance, social support, and positive adaptation during adolescence. From a developmental psychopathology perspective, chronic exposure to abuse, neglect, household dysfunction, and other adverse experiences may disrupt the development of secure interpersonal expectations, emotional regulation capacities, and empathic responding, thereby reducing adolescents' willingness or ability to engage in prosocial interactions (Shonkoff et al., 2012). This interpretation is consistent with attachment-based accounts which propose that early adversity compromises internal working models of trust and reciprocity, making positive social engagement more difficult to sustain. The finding is also highly consistent with Antonovsky's (1987) salutogenic framework, which conceptualizes prosocial behaviour as a valuable social resource that contributes to successful adaptation and

wellbeing. Importantly, reduced prosocial functioning may represent a secondary pathway through which ACEs contribute to later psychosocial difficulties, as adolescents who are less able to develop supportive peer relationships may become increasingly vulnerable to emotional and behavioural problems. Consequently, interventions targeting adolescents with histories of adversity should focus not only on reducing symptoms but also on strengthening social competencies, empathy, peer connectedness, and opportunities for positive social participation.

Self-Compassion as a Protective Resource

Self-compassion emerged as a significant negative predictor of psychosocial difficulties (β = −.11, p = .049), consistent with the broader meta-analytic literature demonstrating inverse associations between self-compassion and common mental health symptoms (MacBeth & Gumley, 2012). The finding that self-compassion was protective against psychosocial difficulties, even after ACE exposure was controlled, aligns with Neff's (2003) theoretical account of self-compassion as a transdiagnostic emotion regulation resource that promotes equanimity in the face of suffering. In the context of adolescents who have experienced household adversity, the ability to respond to one's own distress with kindness rather than harsh self-criticism, to recognize one's struggles as part of the shared human condition (common humanity), and to hold painful emotions in balanced awareness rather than over-identification may serve a particularly vital buffering function (Bluth & Blanton, 2015; Neff & McGehee, 2010).

Contrary to much of the existing literature, ACEs were positively associated with self-compassion. One possible explanation is that some adolescents exposed to adversity may develop compensatory self-soothing and meaning-making strategies that elevate self-compassion as an adaptive response to chronic stress. This interpretation is broadly consistent with resilience perspectives emphasizing positive adaptation despite adversity (Masten, 2014; Oyekola, et.al, 2020) and evidence linking self-compassion to psychological resilience among adolescents (Neff & McGehee, 2010). However, given the cross-sectional design and measurement limitations of the SCS-SF, this finding should be interpreted cautiously and warrants replication in future studies.

The association between self-compassion and psychological wellbeing was positive but did not reach conventional significance in the multivariate model (β = .09, p = .139), possibly due to the limited statistical power of the overall PWB regression (R^2 = .038) and the modest effect sizes characteristic of cross-sectional designs in this literature.

Gratitude: An Unexpected Pattern

The findings regarding gratitude present the most theoretically complex picture. Gratitude approached significance as a positive predictor of psychological wellbeing in the regression model (β = .12, *p* = .051), consistent with broaden-and-build predictions (Fredrickson, 2001) and the Western gratitude literature (Emmons & McCullough, 2003; Wood et al., 2010). However, gratitude was also a significant positive predictor of psychosocial difficulties (β = .16, *p* = .006), a finding that initially appears counterintuitive.

Several explanations warrant consideration. First, gratitude and ACEs were themselves negatively correlated ($r = -.24$, $p < .001$), indicating that higher ACE exposure was associated with lower dispositional gratitude. Second, in collectivist cultural contexts such as among the Yoruba, gratitude may be conceptualized and expressed as a social obligation or relational duty rather than a spontaneous emotional state (Layous et al., 2013). Adolescents who score higher on GQ-6 gratitude items may therefore be more attuned to relational obligations and social expectations; characteristics that could increase sensitivity to interpersonal tensions and self-reported peer-related difficulties on the SDQ. Third, it is possible that high dispositional gratitude in the context of adversity may reflect a form of compelled appreciation or culturally sanctioned minimization of distress rather than a genuinely resource-generating positive orientation. This distinction between authentic and obligatory gratitude deserves careful examination in future qualitative and mixed-methods research with Nigerian adolescents.

Subscale-Level Patterns: Differential Risk and Protection

The subscale analyses (Table 4) add considerable specificity to the total-score findings and largely supported H3. ACEs were the strongest predictor of both emotional symptoms ($\beta = .34$) and conduct problems ($\beta = .36$), consistent with developmental psychopathology accounts in which cumulative early adversity disrupts both internalizing emotion-regulation systems and externalizing behavioural control via shared mechanisms of toxic stress and disrupted attachment (Shonkoff et al., 2012). ACEs were also the strongest predictor of reduced prosocial behaviour ($\beta = -.27$), suggesting that the developmental consequences of cumulative adversity extend beyond the emergence of psychological symptoms to include impairment in positive social functioning. This finding indicates that adversity may compromise not only mental health but also the interpersonal competencies that facilitate resilience, peer support, and successful adaptation during adolescence.

Self-compassion's protective effect was concentrated specifically on peer problems ($\beta = -.21$, $p < .001$), with no significant association with emotional symptoms, conduct problems, or hyperactivity. This specificity is consistent with Neff's (2003) common-humanity component, which proposes that individuals who respond to personal difficulties with kindness and perspective-taking may be less vulnerable to the social withdrawal, self-criticism, and interpersonal sensitivity that often exacerbate peer difficulties. Adolescents who view their social struggles as part of a shared human experience rather than as evidence of personal inadequacy may therefore be better equipped to navigate peer relationships and maintain social connectedness (Bluth & Blanton, 2015).

Unexpectedly, self-compassion was negatively associated with Prosocial Behaviour ($\beta = -.19$, $p < .001$), indicating that adolescents reporting higher self-compassion also reported lower levels of prosocial behaviour. This finding contrasts with much of the existing self-compassion literature, which typically reports positive associations between self-compassion, empathy, and prosocial functioning (Neff & Germer, 2013). The finding should therefore be interpreted cautiously, particularly given the relatively low internal consistency of the SCS-SF in the present sample ($\alpha = .55$). It is possible that measurement limitations, cultural differences in the expression of self-compassion, or construct non-equivalence contributed to this pattern. However, the present data do not permit definitive conclusions regarding the underlying mechanism, and replication using the full Self-Compassion Scale and formal psychometric validation procedures is warranted.

The gratitude subscale pattern shows significant positive associations with prosocial behaviour (β = .19), hyperactivity/inattention (β = .18), and peer problems (β = .17), but not with emotional symptoms or conduct problems which suggests that gratitude in this sample is most strongly tied to *interpersonal* rather than intrapersonal functioning, for both adaptive (prosocial behaviour) and maladaptive (peer problems, hyperactivity-linked impulsivity in social settings) expressions. This is broadly consistent with conceptualizations of gratitude as fundamentally a relational, other-directed emotion (McCullough et al., 2002) whose behavioural correlates in a given cultural context may manifest across both the cooperative and the conflict-prone dimensions of peer interaction, depending on how relational obligation is locally enacted.

Finally, the unusual positive correlation between psychological wellbeing and SDQ Total Difficulties (r = .15, p = .008) merits substantive interpretation. This pattern is well accommodated by the dual-factor model of mental health (Keyes, 2005; Suldo & Shaffer, 2008), which posits that psychopathology and wellbeing constitute two correlated but distinct dimensions rather than two ends of a single continuum. Within this model, adolescents can simultaneously report elevated symptom counts on the SDQ (e.g., on hyperactivity or emotional symptoms subscales, which correlated positively with PWB at r = .133 and .084 respectively) while also reporting high purpose, self-acceptance, and personal growth on the RYFF-18, particularly if these symptoms are experienced as manageable or even motivating within a supportive relational context. An alternative, complementary explanation is that more emotionally expressive or socially engaged adolescents may be more willing to endorse both higher difficulty items and higher wellbeing items, reflecting a general response style of affective openness rather than two genuinely independent constructs operating in tandem. Disentangling these explanations would require multi-informant data (e.g., teacher- or parent-rated SDQ) in future research.

Absence of Gender and Age Effects

Contrary to mixed findings in the Western literature, gender did not significantly differentiate psychological wellbeing or psychosocial difficulties in this sample, with trivially small effect sizes (d ≤ .18). Although some Nigerian studies have identified female gender as a risk factor for specific internalizing symptoms such as depression (Adewuya et al., 2006), no such disparity emerged for either psychosocial difficulties or psychological wellbeing in the present sample, possibly reflecting the homogenizing influence of shared cultural and structural circumstances in an Ibadan secondary school context, where adolescent boys and girls face comparable academic pressures, religious socialization, and family configurations. It is also possible that the gender-disaggregated distribution of ACE subtypes (e.g., higher sexual violence exposure typically reported among girls) was insufficient in magnitude, or offsetting across SDQ subscales, to produce detectable aggregate outcome differences in a sample of this size.

Age group did not predict either outcome, with effect sizes approaching zero (η^2 = .002 in both cases). The narrow age range examined here (12–20 years, predominantly 15–17 years) limits the power to detect developmental trajectories, and this null finding should not be over-interpreted as evidence that wellbeing is developmentally stable throughout adolescence more broadly. Future longitudinal

research spanning a wider developmental window would be necessary to examine intra-individual change in psychological wellbeing and difficulties across adolescence.

THEORETICAL IMPLICATIONS

The study's findings broadly support the salutogenic framework articulated by Antonovsky (1987): psychological resources (here, self-compassion) are protective against adversity-related symptom burden even in samples characterized by elevated ACE exposure. The broaden-and-build framework receives partial support: gratitude showed trends toward enhanced wellbeing, though the expected specificity of this protective effect was not uniformly confirmed. Importantly, the study demonstrates that ACE exposure constitutes a primary mental health risk factor in this Nigerian adolescent population that is not fully counterbalanced by the psychological resources measured here, reinforcing Shonkoff et al.'s (2012) argument that environmental-structural interventions targeting the roots of adversity are indispensable complements to individual-level psychological resource programmes. The pattern of findings also invites renewed attention to the ways in which self-determination theory's three basic needs; autonomy, competence, and relatedness (Deci & Ryan, 2000) may be undermined by ACEs and partially restored through the self-directed acceptance and common humanity dimensions of self-compassion. The strong negative association between ACEs and prosocial behaviour extends developmental psychopathology models by suggesting that adversity affects not only the emergence of maladaptive outcomes but also the development of positive social competencies. This finding aligns with contemporary dual-factor models of mental health, which emphasize that positive functioning and psychopathology represent related but distinct developmental processes.

PRACTICAL RECOMMENDATIONS

Several concrete recommendations for practitioners and policymakers follow from these findings. First, ACE screening should be systematically integrated into secondary school counselling protocols in Nigeria. The elevated ACE burden documented in this sample with emotional abuse, physical abuse, and domestic violence as the most prevalent categories represents a structural vulnerability that requires both individual-level counselling responses and systemic advocacy for child protection policy reform. Second, school counsellors should be trained in and equipped to deliver self-compassion-based interventions. Given the observed association between ACEs and reduced prosocial functioning, school-based interventions should incorporate opportunities for social skills development, peer mentoring, cooperative learning, empathy training, and community service activities. Such programmes may help restore positive social competencies that are compromised by early adversity. Third, gratitude intervention programmes should proceed with caution in West African adolescent populations until the cultural meaning and psychological function of gratitude in this context is better understood. While gratitude training has shown efficacy in Western samples (Froh et al., 2011), the present findings suggest that the gratitude construct may carry different relational meanings among Yoruba adolescents that could complicate straightforward programme transfer. Finally, given the absence of gender and age effects, school-based wellbeing programmes need not be differentially targeted by these demographic variables; rather, resources may be more efficiently directed toward universal, ACE-informed, and self-compassion-building school counselling programmes.

LIMITATIONS

Several limitations should be considered when interpreting the findings. The cross-sectional design precludes causal inferences regarding the relationships among adverse childhood experiences, gratitude, self-compassion, and psychosocial adjustment, and longitudinal research is needed to clarify developmental pathways and temporal ordering among these variables. In addition, all measures relied on adolescent self-report, raising the possibility of shared method variance, recall bias, and social desirability effects. Future studies would benefit from incorporating multiple informants, including parents, teachers, and peers, as well as behavioural or observational measures where feasible. The sample was drawn from in-school adolescents in selected local government areas of Ibadan, which may limit the generalizability of the findings to out-of-school adolescents and adolescents residing in other regions of Nigeria. Furthermore, the relatively low internal consistency of the Self-Compassion Scale-Short Form in the present sample may have attenuated observed associations involving self-compassion and could partly account for some unexpected findings, particularly those relating to prosocial behaviour. Finally, although the study examined important risk and protective factors, the psychological wellbeing model explained only a modest proportion of variance ($R^2 = .038$), suggesting that important determinants of adolescent wellbeing were not captured in the present study. Additional influences such as family functioning, parenting practices, peer relationship quality, school climate, socioeconomic circumstances, and personality characteristics may contribute substantially to adolescent wellbeing and should be examined in future research.

CONCLUSION

Framed within a salutogenic model of risk and resource (Antonovsky, 1987), this study provides robust empirical evidence that ACEs, self-compassion, and gratitude significantly predict adolescent psychosocial difficulties among Nigerian in-school adolescents, above and beyond demographic controls, with a smaller but significant effect on psychological wellbeing. ACEs constitute the dominant risk factor for psychosocial difficulties and are also associated with diminished prosocial functioning, suggesting that childhood adversity undermines not only mental health but also the positive social competencies that support resilience and healthy development during adolescence. ACEs do not merely increase emotional and behavioural problems. They also erode prosocial capacities that help adolescents build relationships, access support, and develop resilience. The data thus accentuate the complementary importance of addressing structural adversity at the policy level and cultivating self-compassionate responding at the individual level within Nigerian secondary school contexts. The pattern of gratitude findings approaching significance for wellbeing while also relating to interpersonal dimensions of difficulty invites continued investigation of how culturally shaped relational emotions operate in West African adolescent mental health. Future longitudinal, multi-method research with culturally validated instruments, multi-informant assessment, and broader sampling frames will be essential to build on the foundations established here.

CONFLICTS OF INTEREST

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