

## Relational Aggression and Depressive Symptoms: The Mediating Role of Social Exclusion Perception

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### ABSTRACT

**Objective:** This study aimed to examine the mediating role of social exclusion perception in the relationship between relational aggression and depressive symptoms among Malaysian adolescents.

**Methods and Materials:** A descriptive correlational design was employed with a sample of 383 secondary school students in Malaysia, selected based on Krejcie and Morgan's sample size determination table. Data were collected using standardized self-report instruments measuring relational aggression, social exclusion perception, and depressive symptoms. Descriptive statistics and Pearson correlation analyses were performed using SPSS-27. Structural Equation Modeling (SEM) was conducted using AMOS-21 to assess the hypothesized mediation model and evaluate model fit through indices such as CFI, TLI, RMSEA, and  $\chi^2/df$ .

**Findings:** Results indicated that relational aggression was significantly and positively correlated with both social exclusion perception ( $r = .49, p < .001$ ) and depressive symptoms ( $r = .42, p < .001$ ), while social exclusion perception was also strongly correlated with depressive symptoms ( $r = .55, p < .001$ ). SEM analysis demonstrated an acceptable model fit ( $\chi^2/df = 2.34$ , CFI = 0.96, RMSEA = 0.058), supporting the proposed mediational model. Path analysis revealed that relational aggression had a significant direct effect on depressive symptoms ( $\beta = 0.26, p < .001$ ), as well as an indirect effect through social exclusion perception ( $\beta = 0.27, p < .001$ ), with a total effect of  $\beta = 0.53$ . These results support the role of perceived social exclusion as a partial mediator in the association between relational aggression and depressive symptomatology.

**Conclusion:** The findings underscore the importance of perceived social exclusion as a psychological mechanism linking relational aggression to depressive symptoms in adolescents. Addressing exclusion experiences in peer interactions may be critical in designing effective interventions to reduce depression and promote emotional well-being among youth.

**Keywords:** Relational aggression; Social exclusion; Depressive symptoms; Adolescents

## 1. Introduction

Adolescence is a developmental period marked by substantial emotional, social, and cognitive changes, during which peer relationships play a central role in shaping mental health outcomes. One area of increasing concern is the prevalence of relational aggression, a covert and socially manipulative form of aggression that involves damaging someone's social relationships or social status through behaviors such as exclusion, gossiping, and social sabotage (Deason et al., 2019; Murray-Close et al., 2016). Unlike physical aggression, relational aggression is often subtler, making it harder to detect yet equally, if not more, detrimental to psychological well-being (Troop-Gordon & Ranney, 2014; Yang et al., 2023). Empirical evidence has highlighted that relational aggression is strongly associated with various internalizing symptoms, including anxiety, loneliness, and notably, depressive symptoms (Çelikkaleli & TÜMtaŞ, 2017; Marcos-Vidal et al., 2025; Martínez-Martínez et al., 2018).

Depression in youth, particularly when triggered by social factors, has far-reaching consequences on academic performance, social functioning, and even suicidal ideation (Bratu, 2023; Hames et al., 2017). Understanding the psychosocial mechanisms underlying the link between relational aggression and depressive symptoms is crucial for both theoretical advancement and practical intervention. Among the numerous cognitive-affective mediators proposed, perceived social exclusion has gained prominence in recent years (Riva et al., 2014; Wang et al., 2024). Social exclusion, which refers to the subjective experience of being ignored, ostracized, or marginalized by peers, is not only a possible outcome of relational aggression but also a powerful predictor of depressive affect (Klanienė et al., 2024; Winter & Burholt, 2018).

Theoretical frameworks such as the Social Pain Overlap Theory (SPOT) suggest that social exclusion activates neural mechanisms similar to those involved in physical pain, thereby linking experiences of rejection to depressive symptomatology (Marcos-Vidal et al., 2025; Riva et al., 2014). Moreover, being the target of relational aggression can intensify feelings of rejection, heighten sensitivity to social cues, and lead to maladaptive cognitive appraisals, such as hostile attribution bias, all of which may contribute to increased depressive symptoms (Quan et al., 2024; Tong et al., 2024; Yamamoto & Moriguchi, 2025). This mediational pathway warrants rigorous empirical scrutiny,

especially in collectivistic societies such as Malaysia, where social harmony and group belonging are culturally emphasized, potentially amplifying the psychological toll of exclusion.

In parallel, multiple empirical studies have provided robust evidence for the role of social exclusion as a mediator in the relationship between aggression and mental health issues. For instance, research has shown that relationally aggressive acts often lead to chronic exclusion from peer groups, which in turn leads to emotional dysregulation and depressive symptoms (Moon, 2022; Teffelen et al., 2021). Experimental paradigms such as Cyberball have been instrumental in demonstrating that even brief experiences of exclusion can evoke strong affective reactions and reduce self-esteem (Hames et al., 2017; He et al., 2022). Moreover, social exclusion has been shown to impair self-regulation and activate maladaptive coping strategies such as rumination, which are directly linked to depressive symptomatology (Qiu et al., 2025; Zhao et al., 2025).

There is also growing evidence that social-cognitive processes mediate the effects of exclusion on aggression and depression. For instance, hostile attribution bias—where individuals interpret ambiguous social cues as intentionally harmful—has been shown to mediate the relationship between exclusion and aggression (Quan et al., 2024; Tong et al., 2024). Similarly, the depletion of cognitive resources following exclusion (ego depletion) may impair an individual's ability to regulate negative affect, contributing to both aggressive retaliation and depressive symptoms (Zhao et al., 2025). These findings suggest that relational aggression may not only contribute to exclusion but also initiate a cascade of cognitive-affective vulnerabilities that culminate in depressive outcomes.

Gender and age differences have also been observed in the prevalence and impact of relational aggression. Research indicates that girls are more likely to engage in and be affected by relational forms of aggression, potentially due to the greater emphasis on intimacy and peer acceptance in female friendships (Lee et al., 2015; Troop-Gordon & Ranney, 2014). Developmentally, adolescence is a sensitive period during which peer evaluation becomes more salient and emotional responses to social exclusion are intensified (Lent et al., 2022; Stenseng et al., 2014). Therefore, studying this phenomenon in an adolescent population is both timely and necessary.

Despite the wealth of research on aggression and depression, few studies have explicitly tested the mediating

role of perceived social exclusion in the relationship between relational aggression and depressive symptoms, especially in non-Western settings. This gap in the literature is significant, given that cultural norms can shape how aggression and exclusion are experienced and internalized. In collectivistic cultures, where interdependence and group cohesion are highly valued, exclusion from a peer group may be especially painful and consequential (Winter & Burholt, 2018; Yang et al., 2023). Thus, findings derived from Western contexts may not fully capture the nuances of these dynamics in Asian populations.

Furthermore, the increasing prevalence of online relational aggression adds another layer of complexity to the issue. Adolescents today are more connected digitally than ever before, and the virtual environment offers new avenues for exclusionary behaviors such as unfriending, ignoring messages, or spreading rumors online (Zhao et al., 2025). This “digital exclusion” has been found to be just as psychologically damaging as face-to-face exclusion and may intensify feelings of isolation and depressive affect (Bratu, 2023; Marcos-Vidal et al., 2025). Considering the digital realities of contemporary adolescence, any comprehensive model examining relational aggression, exclusion, and depression must account for both offline and online dynamics.

This study also contributes to a broader understanding of the emotional consequences of social experiences. Research in affective neuroscience has revealed that experiences of rejection and social pain activate brain regions such as the anterior cingulate cortex and the insula, which are also implicated in depression and suicidality (Marcos-Vidal et al., 2025; Riva et al., 2014). These biological insights further underscore the psychological harm that can result from being relationally targeted and socially excluded.

In summary, the current study is grounded in the need to unravel the complex interplay between relational aggression, perceived social exclusion, and depressive symptoms. It posits that perceived social exclusion serves as a mediating mechanism through which relational aggression exerts its depressive effects on adolescents. Drawing from cross-disciplinary insights—ranging from developmental psychopathology and social-cognitive theory to affective neuroscience and cultural psychology—the study aims to fill a critical gap in the literature by applying structural equation modeling (SEM) to test this mediational framework in a Malaysian adolescent sample.

## 2. Methods and Materials

### 2.1. Study Design and Participants

This study employed a descriptive correlational design to investigate the relationship between relational aggression and depressive symptoms, with social exclusion perception as a mediating variable. The target population included adolescents residing in Malaysia. A total of 383 participants were selected through a multistage cluster sampling method. The sample size was determined using the Krejcie and Morgan (1970) table, ensuring adequate statistical power for correlation and structural equation modeling (SEM) analyses. Participants were secondary school students aged between 13 and 17 years, recruited from various urban and suburban public schools across Malaysia. Inclusion criteria required that participants be fluent in either Malay or English and willing to provide informed consent, while exclusion criteria included diagnosed psychological disorders or recent trauma exposure within the past six months.

### 2.2. Measures

#### 2.2.1. Depressive Symptoms

The Children’s Depression Inventory 2 (CDI-2) developed by Maria Kovacs in 2011 is a widely used self-report tool designed to assess depressive symptoms in children and adolescents aged 7 to 17 years. The CDI-2 contains 28 items, each offering three response options that reflect increasing severity of symptoms (scored 0 to 2). The scale comprises two main subscales: Emotional Problems and Functional Problems, with further subcomponents such as Negative Mood, Ineffectiveness, and Interpersonal Problems. The total score reflects the severity of depressive symptoms, with higher scores indicating greater symptomatology. The CDI-2 has demonstrated excellent internal consistency (Cronbach’s alpha generally above .85) and strong convergent and construct validity in both clinical and non-clinical populations, making it a reliable tool for assessing depression in youth.

#### 2.2.2. Relational Aggression

Relational aggression was measured using the Relational Aggression Subscale from the Children’s Social Behavior Scale (CSBS), originally developed by Crick and Grotpeter in 1995. This teacher- or peer-report instrument consists of 15 items, with 5 items specifically assessing relational aggression (e.g., “This child tells others not to play with a peer to hurt them”). Items are rated on a 5-point Likert scale ranging from 1 (never) to 5 (always), where higher scores

indicate higher levels of relational aggression. The CSBS has been validated in diverse school-aged samples and has shown high internal consistency (typically  $\alpha > .80$  for the relational aggression subscale), strong test-retest reliability, and good discriminant validity when distinguishing relational from overt aggression.

### 2.2.3. Social Exclusion

Perceptions of social exclusion can be measured using the Social Exclusion Questionnaire (SEQ) developed by Zimmer-Gembeck and Nesdale in 2013. This self-report scale assesses adolescents' experiences and perceptions of being excluded or left out by peers. The SEQ includes 12 items rated on a 5-point Likert scale (from 1 = not at all true to 5 = very true), covering subscales such as Perceived Exclusion, Sensitivity to Exclusion, and Emotional Responses to Exclusion. Higher scores represent stronger perceptions of social exclusion. The SEQ has been shown to have good psychometric properties, including strong internal consistency (Cronbach's alpha values typically exceeding .80), and has been validated in adolescent samples, supporting its use in research on peer-related emotional and behavioral outcomes.

### 2.3. Data Analysis

Data were analyzed using SPSS version 27 and AMOS version 21. Initially, descriptive statistics were calculated to

summarize participants' demographic characteristics. To explore the associations between variables, Pearson correlation coefficients were computed between the dependent variable (depressive symptoms) and each of the independent variables (relational aggression and social exclusion perception). For testing the mediating model, Structural Equation Modeling (SEM) was performed using AMOS. Goodness-of-fit indices such as the Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and the Tucker-Lewis Index (TLI) were used to evaluate the model fit. A significance level of  $p < .05$  was considered in all statistical tests.

## 3. Findings and Results

The sample consisted of 383 adolescents, with 211 females (55.1%) and 172 males (44.9%). In terms of age distribution, 117 participants (30.5%) were 13 years old, 89 (23.2%) were 14, 78 (20.4%) were 15, 55 (14.4%) were 16, and 44 (11.5%) were 17 years old. Ethnically, the sample comprised 268 Malays (70.0%), 61 Chinese (15.9%), 41 Indians (10.7%), and 13 participants (3.4%) from other ethnic backgrounds. Regarding school location, 227 students (59.3%) were from urban schools, while 156 (40.7%) were from suburban areas. Most participants reported living in two-parent households (312 participants; 81.5%), while the remaining (71 participants; 18.5%) lived with a single parent or guardian.

**Table 1**

*Descriptive Statistics for Study Variables (N = 383)*

Variable	Mean (M)	Standard Deviation (SD)
Relational Aggression	2.84	0.67
Social Exclusion Perception	3.12	0.71
Depressive Symptoms	2.96	0.75

As presented in **Table 1**, the mean score for relational aggression was  $M = 2.84$  ( $SD = 0.67$ ), indicating a moderate level of reported relational aggression among participants. The mean score for perceived social exclusion was  $M = 3.12$  ( $SD = 0.71$ ), suggesting that participants experienced a relatively elevated sense of being excluded. Depressive symptoms had a mean of  $M = 2.96$  ( $SD = 0.75$ ), reflecting moderate levels of depressive symptomatology in this adolescent sample.

Prior to conducting parametric analyses, all statistical assumptions were tested and confirmed. Normality was assessed through skewness and kurtosis values, all of which

were within the acceptable range of  $\pm 2$ . For instance, the skewness for depressive symptoms was 0.43 and kurtosis was -0.89. Linearity was visually examined through scatterplots, indicating linear relationships between variables. Homoscedasticity was evaluated using the Levene's Test, which was nonsignificant for all variables ( $p > .05$ ), confirming equal variances. Multicollinearity was checked through variance inflation factor (VIF) values, which ranged from 1.12 to 1.47, all well below the threshold of 5, indicating no multicollinearity concerns. Finally, Mahalanobis distance was used to assess multivariate outliers, with no values exceeding the critical chi-square

value at  $p < .001$  for  $df = 3$  ( $\chi^2 = 16.27$ ), confirming the absence of outliers.

**Table 2**

*Pearson Correlation Coefficients and p-values Between Variables (N = 383)*

Variables	1	2	3
1. Relational Aggression	—		
2. Social Exclusion Perception	.49** ( $p < .001$ )	—	
3. Depressive Symptoms	.42** ( $p < .001$ )	.55** ( $p < .001$ )	—

The correlation matrix in [Table 2](#) shows that relational aggression was significantly positively correlated with perceived social exclusion ( $r = .49$ ,  $p < .001$ ) and depressive symptoms ( $r = .42$ ,  $p < .001$ ). Moreover, social exclusion perception was strongly correlated with depressive

symptoms ( $r = .55$ ,  $p < .001$ ). These statistically significant associations support the hypothesized relationships among the variables and indicate that higher relational aggression is associated with both greater perceived social exclusion and more intense depressive symptoms.

**Table 3**

*Goodness-of-Fit Indices for the Structural Equation Model*

Fit Index	Value	Threshold Criteria
Chi-Square ( $\chi^2$ )	112.48	—
Degrees of Freedom	48	—
$\chi^2/df$	2.34	< 3.00 (acceptable)
GFI	0.94	≥ 0.90 (good fit)
AGFI	0.91	≥ 0.90 (good fit)
CFI	0.96	≥ 0.95 (excellent fit)
RMSEA	0.058	≤ 0.08 (acceptable fit)
TLI	0.95	≥ 0.95 (excellent fit)

As shown in [Table 3](#), the structural model demonstrated a good overall fit to the data. The Chi-square value was  $\chi^2 = 112.48$  with  $df = 48$ , and the  $\chi^2/df$  ratio was 2.34, which is well within the acceptable range. Other indices, including GFI (0.94), AGFI (0.91), CFI (0.96), TLI (0.95), and

RMSEA (0.058), all meet or exceed commonly accepted thresholds, indicating that the proposed model adequately captures the relationships among relational aggression, social exclusion perception, and depressive symptoms.

**Table 4**

*Path Coefficients in the Structural Equation Model*

Path	B	SE	$\beta$	p
Relational Aggression → Social Exclusion	0.46	0.06	0.49	<.001
Social Exclusion → Depressive Symptoms	0.52	0.05	0.55	<.001
Relational Aggression → Depressive Symptoms (direct)	0.23	0.07	0.26	<.001
Relational Aggression → Depressive Symptoms (indirect via SE)	0.24	0.04	0.27	<.001
Relational Aggression → Depressive Symptoms (total)	0.47	0.06	0.53	<.001

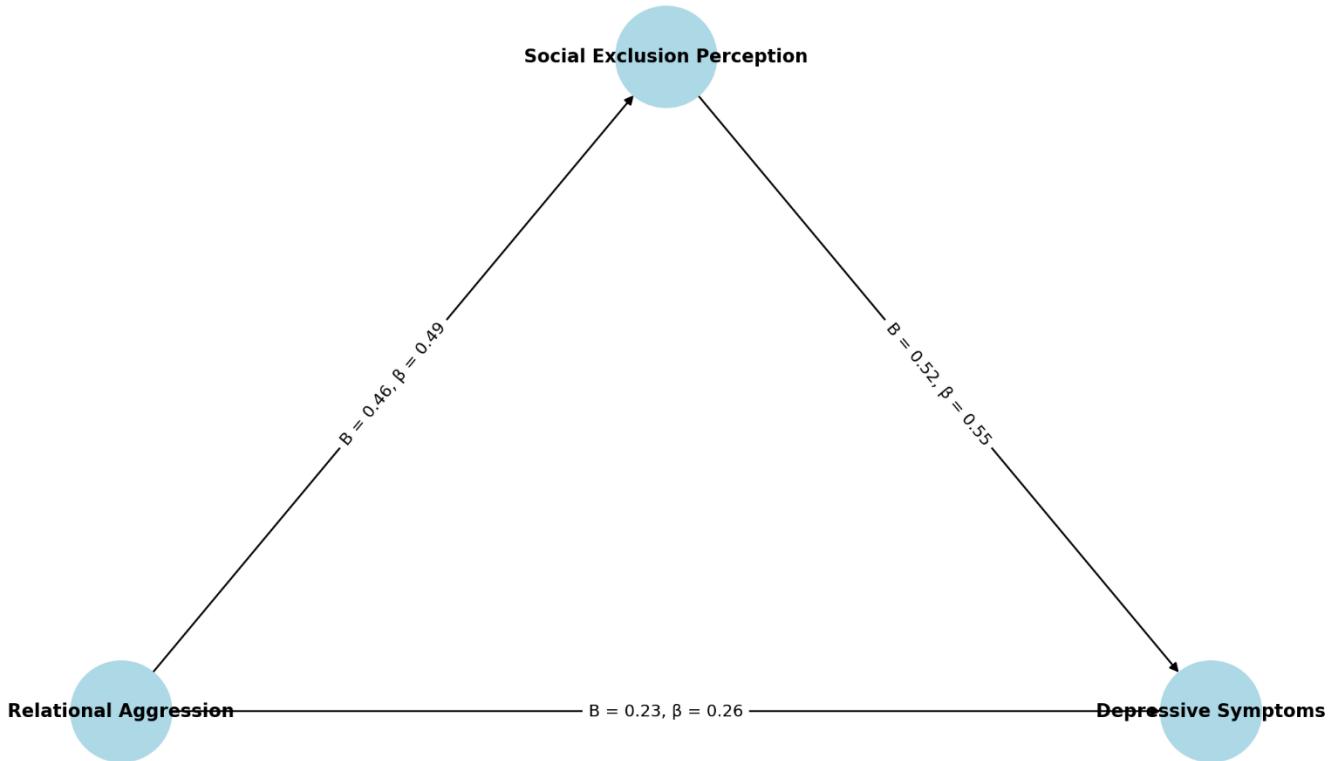
The path analysis results in [Table 4](#) confirm both direct and indirect pathways. Relational aggression had a significant direct effect on social exclusion ( $\beta = 0.49$ ,  $p < .001$ ) and a direct effect on depressive symptoms ( $\beta = 0.26$ ,  $p < .001$ ). Social exclusion also had a significant direct effect on depressive symptoms ( $\beta = 0.55$ ,  $p < .001$ ). The indirect

effect of relational aggression on depressive symptoms through social exclusion was also significant ( $\beta = 0.27$ ,  $p < .001$ ), indicating partial mediation. The total effect of relational aggression on depressive symptoms was  $\beta = 0.53$ , emphasizing the strong influence of peer relational dynamics on adolescent mental health.

**Figure 1**

*Structural Model of The Study*

Structural Model of Relational Aggression, Social Exclusion Perception, and Depressive Symptoms



#### 4. Discussion and Conclusion

The present study investigated the relationship between relational aggression and depressive symptoms in adolescents, with a particular focus on the mediating role of perceived social exclusion. The statistical analysis revealed three primary findings: (1) relational aggression was positively correlated with depressive symptoms; (2) perceived social exclusion significantly mediated the relationship between relational aggression and depressive symptoms; and (3) structural equation modeling confirmed the model's fit, indicating the explanatory strength of the mediational pathway. These results underscore the psychological costs of relational aggression and demonstrate that the social cognitive experience of being excluded plays a pivotal role in shaping mental health outcomes among youth.

The significant correlation between relational aggression and depressive symptoms is consistent with prior studies showing that covert aggression—such as gossiping, exclusion, and manipulation—can produce deep emotional

wounds that manifest as internalized distress (Deason et al., 2019; Martínez-Martínez et al., 2018; Murray-Close et al., 2016). While physical aggression has been traditionally emphasized in adolescent psychology, this study adds to the growing body of literature that recognizes relational aggression as an equally damaging form of social harm. The current findings are aligned with (Troop-Gordon & Ranney, 2014), who found that both perpetrating and being a victim of relational aggression were significantly associated with depressive affect in adolescents.

Perhaps the most important finding in this study is the mediating role of perceived social exclusion, which significantly explained the pathway from relational aggression to depressive symptoms. Adolescents who reported higher levels of relational aggression exposure were more likely to perceive themselves as excluded, and this perception contributed significantly to elevated depressive symptoms. This finding corroborates social exclusion theories that posit rejection and marginalization are critical antecedents of emotional distress (Klanienė et al., 2024; Riva et al., 2014; Winter & Burholt, 2018). In collectivistic

societies like Malaysia—where group cohesion and peer inclusion are culturally emphasized—the effects of exclusion may be intensified, leading to deeper emotional consequences.

Our results are in line with prior experimental and survey-based findings showing that social exclusion serves as a significant mediator between aggressive behavior and emotional dysfunction. For example, (Zhao et al., 2025) demonstrated that social exclusion predicted online aggression through ego depletion, while (Qiu et al., 2025) highlighted how exclusion reduces self-control and increases aggression. In contrast, the present study extends this line of work by situating exclusion as a mediator between *victimization* through relational aggression and *depression*, thereby linking social experiences directly with mental health outcomes.

Additionally, the results support the Social Pain Overlap Theory (SPOT), which suggests that social exclusion activates the same neural circuits as physical pain, leading to aversive emotional states (Marcos-Vidal et al., 2025; Riva et al., 2014). Neuroimaging evidence cited in (Marcos-Vidal et al., 2025) found increased activity in the anterior cingulate cortex and insula during social exclusion, reinforcing the argument that perceived exclusion should not be underestimated as a minor stressor—it constitutes a major source of psychological pain. Such findings give credence to the observed statistical relationships in this study, suggesting that when adolescents experience relational aggression, their perception of being excluded activates a neuropsychological response that culminates in depressive symptomatology.

The relationship between social exclusion and depression also supports the findings of (Hames et al., 2017), who found that exclusion increased suicidal ideation and self-harming tendencies, especially in individuals with acquired capability for suicide. This study further adds to the literature by suggesting that *perceived* rather than objectively measured exclusion can be psychologically harmful. Subjective feelings of not belonging or being unwanted may be even more relevant to adolescent mental health than actual instances of exclusion, as indicated by our self-report-based methodology.

It is also notable that the structural equation model demonstrated a good fit, indicating that the theoretical model tested was statistically sound. This confirms similar modeling approaches used in previous research, such as (Martínez-Martínez et al., 2018), who employed SEM to explore violent behavior and mental health outcomes in adolescents. Likewise, the indirect pathways observed in this

study are consistent with the findings of (Tong et al., 2024), who argued that exclusion-related constructs such as relative deprivation and hostile attribution bias act as intermediary mechanisms in explaining relational aggression outcomes.

The present findings further echo (Teffelen et al., 2021) and (Moon, 2022), who emphasized the role of personality factors and exclusion in provoking aggression and mood-related disturbances. Importantly, this study broadens the application of these findings to depressive symptoms rather than aggression alone, reinforcing the necessity of addressing both behavioral and emotional domains when considering the impact of peer dynamics in adolescence.

Furthermore, the study contributes to our understanding of cultural and developmental variation in social exclusion and mental health. For example, (Yang et al., 2023) explored self-construal differences and found that collectivistic values may heighten the perceived intensity of social exclusion, making the adolescent more vulnerable to psychological distress. The Malaysian sample in this study may have experienced relational aggression and exclusion as threats not only to personal identity but also to social belonging, thus intensifying depressive responses. This cultural lens aligns with the work of (Winter & Burholt, 2018), who linked exclusion from social relationships to declines in social cohesion and belonging.

The gendered implications of the findings also merit mention. Previous research has shown that girls are more likely to engage in and be affected by relational forms of aggression due to the relational orientation of their social networks (Lee et al., 2015; Troop-Gordon & Ranney, 2014). Although gender analysis was not the focus of this study, descriptive statistics revealed a slightly higher depression mean score among female participants, which is in line with gendered trajectories of internalizing symptoms in adolescence. Further exploration of gender differences in the mediational pathway would be a valuable addition to future research.

Lastly, the findings open avenues for targeted interventions. If perceived social exclusion is indeed a pivotal factor linking aggression to depression, then school-based programs aimed at inclusion, empathy-building, and peer mediation could serve as effective preventative measures. As (Lent et al., 2022) demonstrated, social dominance and peer dynamics shape early behavioral outcomes, suggesting that early intervention in social systems could reduce long-term emotional difficulties. Intervening in relational aggression may have not only behavioral but also emotional payoffs, which highlights the

value of comprehensive psychoeducational approaches in school settings.

## 5. Limitations & Suggestions

Despite its strengths, this study has several limitations that warrant consideration. First, the cross-sectional nature of the data restricts the ability to draw causal conclusions regarding the directionality of the relationships between variables. While the SEM model offers support for the hypothesized pathways, longitudinal data would be more robust in determining whether relational aggression indeed precedes perceived exclusion and subsequent depression. Second, the study relied entirely on self-report instruments, which may be subject to social desirability and recall biases. Participants may underreport aggressive behaviors or overreport exclusion experiences based on current emotional states. Third, the sample was limited to Malaysian adolescents, which, while valuable for cultural specificity, limits the generalizability of the findings to other cultural contexts. Additional studies in varied settings would help validate the universality or specificity of the observed patterns.

Future research should consider a longitudinal design to better capture the dynamic and potentially reciprocal nature of the relationships among relational aggression, social exclusion perception, and depressive symptoms. It would be especially useful to follow adolescents across critical transition periods—such as the shift from lower to upper secondary school—to examine how changes in peer dynamics affect emotional well-being over time. Furthermore, integrating qualitative methods, such as interviews or focus groups, could provide deeper insight into how adolescents interpret and internalize experiences of relational aggression and exclusion. Researchers might also explore additional mediators or moderators such as self-esteem, emotion regulation, or cultural identity, which may influence the strength or direction of the relationships. Lastly, expanding the sample to include diverse regions and age groups would improve the generalizability and comparative value of future findings.

Based on the findings of this study, schools should implement proactive programs that educate students about the harmful effects of relational aggression and emphasize the importance of inclusion and peer support. Teachers and counselors should receive training to detect subtle forms of exclusion and aggression that may go unnoticed but contribute significantly to student distress. Additionally,

incorporating social-emotional learning (SEL) curricula can help students build empathy, communication, and conflict-resolution skills. Mental health screening programs in schools could also be expanded to include assessments of relational aggression and social exclusion experiences, allowing for early identification of students at risk for depression. Interventions targeting social belonging, peer group dynamics, and emotional resilience can mitigate the psychological harm associated with exclusion and foster a healthier, more supportive educational environment.

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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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