



The Moderated Mediation Effect of Self-Esteem on the Relationship between Parental Abuse, Depression, and Aggression

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ABSTRACT

The problem and the aim of the study. Parental abuse has been linked to increased aggression in adolescents, but the mechanisms underlying this relationship remain unclear. *This study aims* to examine both the mediating role of depression and the moderated mediation effect of self-esteem in the pathway from parental abuse to adolescent aggression. Focusing on middle school students, the study seeks to provide foundational data for preventing maladjustment during adolescence by identifying how depression contributes to aggression and how self-esteem can buffer this negative psychological pathway. Understanding these mechanisms can inform targeted mental health interventions and promote healthier developmental outcomes for at-risk youth.

Research methods. Data from 1,326 first-year middle school students participating in the 14th wave of the Panel Study on Korean Children (PSKC) were analyzed. This longitudinal study tracks children born in 2008 annually. Reliability analysis, descriptive statistics, frequency analysis were conducted using SPSS Win 24.0. In addition, mediation, and moderated mediation effects were tested using SPSS PROCESS macro version 4.2 (Models 4, and 8). Bootstrapping analysis with a sample size of 5,000 and a 95% confidence interval was conducted using the mean and three levels of self-esteem ($M, M \pm 1SD$). To minimize multicollinearity, the independent and moderator variables were mean-centered prior to the analysis.

Results. First, adolescents reported low levels of parental abuse ($M=1.144/5$), aggression ($M=1.059/6$), and depression ($M=1.469/4$), but relatively high self-esteem ($M=3.191/4$). Second, depression was found to partially mediate the relationship between parental abuse and adolescent aggression, highlighting depressive symptoms as a key psychological pathway linking adverse experiences to externalizing behaviors, as indicated by a 95% confidence interval excluding zero (Effect = .021, CI [.009, .039]). Third, the moderated mediation analysis revealed that adolescent self-esteem significantly buffered the impact of parental abuse on aggression. The overall model was significant ($F = 31.704, p < .001$), Parental abuse had a positive effect on aggression (Coefficient = 0.086, $p < .001$), but this effect was significantly attenuated by the interaction with self-esteem (Coefficient = -0.098, $p < .001$), indicating that self-esteem moderates the impact of parental abuse on adolescent aggression. Moreover, the indirect effect of parental abuse on aggression through depression remained significant across all levels of self-esteem, confirming a moderated mediation effect.

Conclusion. The findings indicate that parental abuse influences adolescent aggression through depression, and that self-esteem buffers this negative effect. These results highlight the importance of interventions addressing abuse alongside efforts to enhance self-esteem and emotional resilience to prevent aggression in adolescents.

KEYWORDS

parental abuse, depression, aggression, self-esteem, moderated mediation effect

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INTRODUCTION

Each year, approximately one billion children and adolescents worldwide (aged 2–17) are subjected to physical, sexual, emotional violence or neglect, often by those entrusted with their care [1]. Alarmingly, such maltreatment occurs not only in marginalized settings but also in homes, schools, educational institutions, care facilities, and communities, frequently under the guise of discipline or tradition [2]. In South Korea, parental abuse remains the most prevalent, accounting for 85.9% of all child abuse cases, an increase of 3.2 percentage points compared to the previous year [3].

Exposure to parental abuse during early developmental periods has been consistently linked to various psychological and behavioral problems. Exposure to parental abuse during early developmental periods has been consistently linked to a variety of psychological and behavioral problems in adolescence. For example, longitudinal data from the Isle of Wight cohort demonstrated that individuals who experienced childhood maltreatment were 15 times more likely to develop mild depression and 8 times more likely to suffer from anxiety disorders in adulthood compared to those without such experiences [4]. They tend to exhibit lower levels of social competence compared to their typically developing peers [5].

Furthermore, child maltreatment significantly increases the risk of suicidal ideation and self-harming behaviors. A meta-analysis involving over 330,000 individuals reported that adolescents who experienced sexual abuse had more than a fourfold increased risk of planning suicide, while other forms of abuse increased risks for suicidal ideation and attempts by approximately two to three times [6].

In addition, childhood maltreatment adversely affects brain development, leading to impairments in memory, attention, and executive functions. These neurocognitive difficulties manifest behaviorally as decreased academic performance, school avoidance, and overall reduced motivation for learning [7; 8].

Furthermore, experiences of parental abuse contribute to increased aggression over time as children grow older, with such aggression often manifesting during adolescence and leading to delinquent behaviors [9]. Aggression tends to peak during early adolescence, particularly between ages 13 and 15, and while it may decrease in later years, early aggressive tendencies often persist into adulthood if unaddressed [10; 11]. Therefore, identifying factors that exacerbate or mitigate adolescent aggression is essential for both theoretical understanding and practical intervention.

Among various mediating mechanisms, depression has been identified as a significant psychological consequence of child maltreatment. Depression and anxiety during adolescence are particularly strongly associated with emotional abuse and neglect, which can lead to social withdrawal, lowered self-efficacy, and difficulties in emotional regulation [7]. Adolescents who experience parental abuse often internalize feelings of worthlessness and rejection, which increase the risk of developing depressive symptoms [12]. In turn, depression may trigger externalizing behaviors such as aggression as a maladaptive coping strategy [13]. In other words, adolescents with a history of parental abuse often experience feelings of helplessness and negative self-perceptions, believing that they are unworthy of love and acceptance [14; 15]. As a result, they may develop depressive symptoms and ultimately, in an effort to relieve psychological tension, resort to aggression—behavioral patterns learned through observation and imitation of earlier experiences [16]. Recent studies support this mediating pathway, indicating that depression serves as a key mechanism linking abuse experiences to aggressive outcomes [17].

While the role of depression as a mediator has been widely studied, less is known about psychological buffers that might moderate this relationship. In this regard, self-esteem has emerged as a potential protective factor. High self-esteem has been associated with resilience to negative feedback and adaptive coping strategies, whereas adolescents with low self-esteem are more vulnerable to emotional distress and behavioral dysregulation [18; 19].

Recent research highlights self-esteem as a crucial psychological protective factor that moderates the relationship between internalizing symptoms such as depression and anxiety and externalizing behaviors like aggression. For instance, [9] reported that self-esteem serves a moderated mediation role in the impact of parental abuse on adolescent depression and aggression, supporting the hypotheses of the present study. Longitudinal studies conducted with adolescents in the United States and New Zealand have consistently shown that low self-esteem is associated with higher levels of aggression, antisocial behavior, and delinquency, even after controlling for depressive symptoms [20; 21].

Research with Chinese adolescents also supports this buffering effect of self-esteem, suggesting that self-esteem influences aggression indirectly through emotional mechanisms such as jealousy and self-control [22; 23]. Moreover, the stability of self-esteem—beyond its level—has been shown to be a key moderator, with adolescents possessing high and stable self-esteem demonstrating significantly lower levels of aggression [24; 25]. Korean studies have also found that lower self-esteem was associated with higher levels of depression and anxiety, which in turn increased aggression. The study highlighted the moderating role of self-esteem in regulating aggression related to emotional distress [26]. These findings suggest that adolescents with higher self-esteem are better able to regulate negative emotional states and are less likely to express distress through aggressive behavior.

Taken together, existing literature highlights a potentially moderated mediation model: parental abuse increases adolescent depression, which in turn predicts aggression, and self-esteem may attenuate or strengthen these associations. However, empirical studies that examine both the mediating role of depression and the moderated mediation effect of self-esteem in a single model—especially among early adolescents—remain limited.

The present study aims to examine the mediating role of depression in the relationship between parental abuse and adolescent aggression, and the moderating and moderated mediation effect of self-esteem within this pathway. By focusing on middle school students, a developmental stage characterized by heightened emotional vulnerability and identity formation, this study seeks to contribute to a more nuanced understanding of how internal and external psychological factors interact in shaping maladaptive behaviors during adolescence. The findings are expected to provide theoretical insights and practical implications for mental health interventions and abuse prevention programs targeting at-risk youth.

MATERIALS AND METHODS

Research Model

This study proposed a conceptual research model [Figure 1] based on the assumption that self-esteem has a moderated mediation effect on the influence of parental abuse on adolescent aggression through depression.

Participants and Data Collection Procedure

This study utilized data from the 14th wave of the Korean Child Panel Study (PSKC) [28], analyzing responses from 1,326 first-year middle school students. The gender distribution was balanced, with 688 males (51.0%) and 660 females (49.0%). Regarding pocket money, 667 students (50.3%) reported receiving it regularly, 494 (37.3%) received it as needed, and 165 (12.4%) did not receive any. Most participants (1,330; 98.7%) attended general middle schools, while 18 students (1.3%) were enrolled in specialized schools such as arts, sports, international, or alternative middle schools.

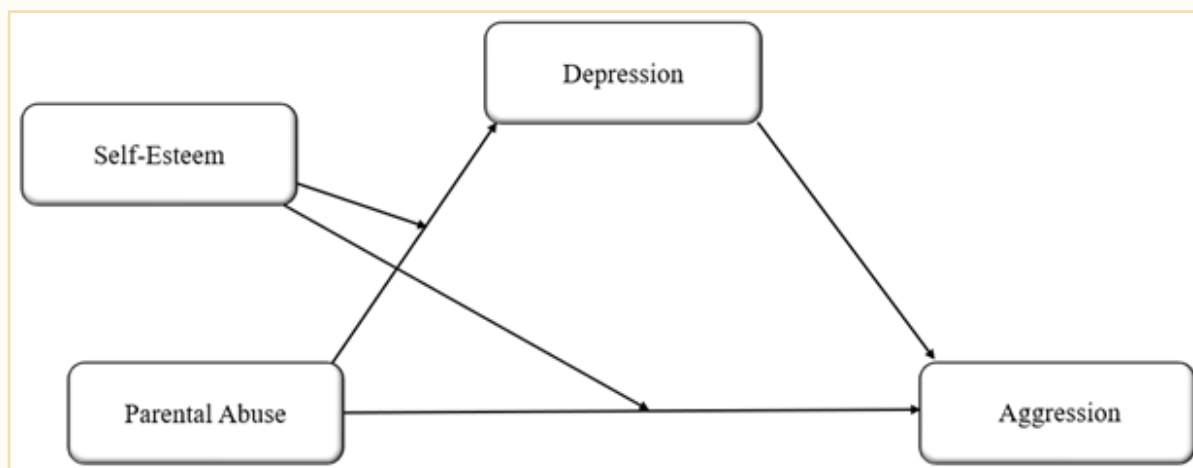


Figure 1 Conceptual Research Model

Measurement Instruments

All measurement tools used the mean scores of items, with higher scores indicating greater experiences of parental abuse, higher levels of aggression, higher levels of depression, and higher self-esteem.

The independent variable, parental abuse, was measured using the child abuse scale from the Korean Child Panel Study (PSKC) [27]. This scale consists of 4 items rated on a 5-point Likert scale (1 = never, 2 = once or twice in the past 6 months, 3 = once or twice a month, 4 = once or twice a week, 5 = almost daily). The Cronbach's alpha for the four items was .717.

The dependent variable, adolescent aggression, was measured by the violence perpetration scale (both online and offline) from the same PSKC dataset [27]. This scale includes 13 items rated on a 6-point Likert scale. The reliability of the scale was Cronbach's alpha = .758.

The mediating variable, depression, was assessed using the depression scale from PSKC [27]. Participants were asked to select statements that best described their feelings and behaviors over the past week. The scale consists of 11 items rated on a 4-point Likert scale, with two items ("felt happy" and "had fun") reverse-coded. The Cronbach's alpha for this scale was .819.

The moderated mediating variable, self-esteem, was measured using the self-esteem scale from PSKC [27]. This scale contains 5 items rated on a 4-point Likert scale, with a Cronbach's alpha of .861.

Data Analysis Method

Data analyses were conducted using SPSS Windows version 24.0. Reliability analysis, descriptive statistics, frequency analysis, and correlation analysis were performed. To examine the moderated mediation effect, the PROCESS macro version 4.2 for SPSS (Model 8) was utilized [28].

For the moderated mediation analysis, bootstrapping was performed with 5,000 resamples and a 95% confidence interval. The analysis used the mean value and three conditional values of self-esteem (M , $M \pm 1$ SD). To minimize multicollinearity, the independent variable and the moderator were mean-centered prior to analysis.

RESEARCH RESULTS

General Trends of Major Variables

Descriptive statistics were conducted to examine the levels of parental abuse, aggression, depression, and self-esteem among adolescents. The mean score for parental abuse was low at 1.144 out of 5, and aggression was also very low with a mean of 1.059 out of 6. Depression scored low as well, with a mean of 1.469 out of 4, whereas self-esteem was relatively high, averaging 3.191 out of 4 (see Table 1). These results indicate that the adolescents in this study experienced low levels of parental abuse, aggression, and depression, but high levels of self-esteem.

Table 1 Descriptive Statistics and General Patterns of Key Variables <N=1,326>

	Minimum	Maximum	Mean	S.D
Parental Abuse	1.00	5.00	1.144	.364
Aggression	1.00	4.31	1.059	.193
Depression	1.00	3.73	1.469	.390
Self-Esteem	1.00	4.00	3.191	.526

Next, correlations among the main variables were examined before testing the research model (see Table 2). Focusing on the dependent variable, aggression, parental abuse was positively correlated with aggression ($r = .226$, $p < .001$), as was depression ($r = .206$, $p < .001$). In contrast, self-esteem was negatively correlated with aggression ($r = -.086$, $p < .01$). The correlation coefficients ranged from .083 to .480, indicating no multicollinearity concerns among the variables [29; 30].

Table 2 Correlations Among Variables <N=1,326>

	Parental Abuse	Aggression	Depression	Self-Esteem
Parental Abuse	1			
Aggression	.226***	1		
Depression	.220***	.206***	1	
Self-Esteem	-.083**	-.086**	-.480***	1

** $p < .01$, *** $p < .001$

Mediating Effect of Depression

To examine the mediating effect of depression on the relationship between parental abuse and adolescent aggression, analysis was conducted using Model 4 of the SPSS PROCESS macro (see Tables 3, 4). Based on consistent significant differences observed in the descriptive analyses of key variables, gender was included as a covariate in the model.

All path coefficients in the mediation model were statistically significant (see Table 3).

First, parental abuse had a significant positive effect on adolescent aggression (Coefficient = .113, $p < .001$), indicating that higher levels of parental abuse were associated with increased levels of aggression. Parental abuse accounted for 6.4% of the variance in adolescent aggression.

When depression was added as a mediating variable, parental abuse significantly predicted higher levels of depression (Coefficient = .243, $p < .001$), and depression, in turn, significantly predicted higher aggression (Coefficient = .085, $p < .001$). These findings indicate that parental abuse increases adolescent depression, which subsequently leads to increased aggression.

Furthermore, the total effect of parental abuse on aggression was Coefficient = .113, while the direct effect decreased to Coefficient = .093 after including depression, suggesting that depression partially mediates the relationship between parental abuse and adolescent aggression (see Table 4).

To test the statistical significance of the indirect effect of depression, 5,000 bootstrap resamples were generated with a 95% confidence interval (see Table 4). In the pathway from parental abuse → depression → aggression, the mediating effect of depression was Coefficient = .021, with a lower bound of .009 and an upper bound of .039. Since zero was not included in the confidence interval, the mediating effect of self-esteem was considered statistically significant.

Therefore, depression was confirmed to serve as a mediator in the relationship between parental abuse and adolescent aggression.

Table 3 Mediating Effect of Depression <N=1,326>

Variable	Coefficient	SE	t	p	LLCI	ULCI
Dependent Variable: Aggression						
Constant	.907	.017	52.636	.000	.873	.941
Parental Abuse	.113	.014	8.003	.000	.085	.141
Gender (1 = male)	.043	.010	4.183	.000	.023	.063

$R^2 = .064$, $F=44.898$, $p<.001$						
Dependent Variable: Depression						
Constant	1.217	.035	34.667	.000	1.148	1.286
Parental Abuse	.243	.029	8.439	.000	.186	.299
Gender (1 = male)	-.050	.021	-2.402	.017	-.092	-.009
$R^2 = .053$, $F=36.734$, $p<.001$						
Dependent Variable: Aggression						
Constant	.804	.024	34.260	.000	.758	.850
Parental Abuse	.093	.014	6.467	.000	.064	.121
Depression	.085	.013	6.397	.000	.059	.111
Gender (1 = male)	.047	.010	4.658	.000	.027	.067
$R^2 = .092$, $F=44.477$, $p<.001$						

Table 4 Test of the Indirect Effect of Depression <N = 1,326>

Total Effect, Direct Effect						
	Coeffect	SE	t	p	LLCI	ULCI
Total Effect	.113	.014	8.003	.000	.085	.141
Direct Effect	.093	.014	6.467	.000	.064	.121

	Effect	BootSE	BooLLCI	BooULCI
Parental Abuse → Depression → Aggression	.021	.008	.009	.039

Moderated Mediation Effect of Self-Esteem

To test the moderated mediation effect of self-esteem on the pathway from parental abuse to adolescent aggression via depression, Model 8 of the SPSS PROCESS macro was employed. Bootstrapping analysis with a sample size of 5,000 and a 95% confidence interval was conducted using the mean and three levels of self-esteem (M , $M \pm 1SD$). To minimize multicollinearity, the independent and moderator variables were mean-centered prior to the analysis (see Table 5, Figures 2 and 3).

In the outcome model examining whether adolescent self-esteem moderates the effect of parental abuse on aggression, the overall model was significant ($F = 31.704$, $p < .001$), explaining 10.7% of the variance. The interaction between parental abuse and self-esteem was also significant ($F = 22.946$, $p < .001$), accounting for an additional 1.6% of variance. Parental abuse had a positive effect on aggression (Coeffect = .086, $p < .001$), but this effect was significantly attenuated by the interaction with self-esteem (Coeffect = -.098, $p < .001$), indicating that self-esteem moderates the impact of parental abuse on adolescent aggression (see Table 5, Figure 2).

To better understand the nature of this moderation, self-esteem was categorized into low ($M - 1SD$), moderate (M), and high ($M + 1SD$) levels, and conditional effects were analyzed (see Figure 3). The conditional effects of parental abuse on aggression were statistically significant at low and moderate levels of self-esteem, as their 95% confidence intervals did not include zero. However, at high levels of self-esteem, the effect was not significant, suggesting a buffering role of high self-esteem against the adverse effects of parental abuse (see Table 5, Figure 3).

Finally, the Johnson-Neyman technique was applied to identify the precise range of self-esteem scores for which the effect of parental abuse on aggression was significant. The effect was significant when self-esteem scores ranged from -2.191 to .508, encompassing 78.431% of the sample. Importantly, the moderating effect showed that higher levels of self-esteem weakened the relationship between parental abuse and aggression (see Table 5).

Table 5 Moderated Mediation Effect of Self-Esteem <N=1,326>

Variable	Coeffect	SE	t Value	p	LLCI	ULCI
Moderation Model (Dependent Variable: Depression)						
Constant	1.470	.013	.111.215	.000	1.444	1.496
Parental Abuse	.187	.026	7.311	.000	.137	.237
Self-Esteem	-.339	.018	-19.096	.000	-.374	-.305
Abuse × Self-Esteem	-.092	.037	-2.462	.014	-.165	-.019
Gender (1 = male)	-.005	.019	-.288	.774	-.042	.031
R ² =.267, F=120.127, p=.000						
R ² Increase by Interaction Term						
Interaction Term	R ²		F		p	
Abuse × Self-Esteem	.003		6.062		.014	
Conditional Effects of Self-Esteem						
Self-Esteem	Effect	SE	t Value	p	LLCI	ULCI
-.526(M-1SD)	.236	.030	7.750	.000	.176	.295
.000(M)	.187	.026	7.311	.000	.137	.238
.526(M+1SD)	.039	.034	4.091	.000	.072	.206
Outcome Model (Dependent Variable: Aggression)						
Constant	.917	.023	39.536	.000	.872	.963
Parental Abuse	.086	.014	6.009	.000	.058	.114
Depression	.079	.015	5.274	.000	.050	.109
Self-Esteem	.002	.011	.156	.876	-.020	.023
Abuse × Self-Esteem	-.098	.020	-4.790	.000	-.138	-.058
Gender (1 = male)	.046	.010	4.547	.000	.026	.066
R ² =.107, F=31.704, p=.000						
R ² Increase by Interaction Term						
Interaction Term	R ²		F		p	
Abuse × Self-Esteem	.016		22.946		.000	
Conditional Effect of Self-Esteem						
Self-Esteem	Effect	SE	t Value	p	LLCI*	ULCI**
-.526(M-1SD)	.137	.017	8.079	.000	.104	.170
.000(M)	.086	.014	6.009	.000	.058	.114
.526(M+1SD)	.034	.019	1.842	.066	-.002	.071
Johnson–Neyman Significance Region (DV: Aggression)						
Self-Esteem		% Under			% Above	
.508		78.431			21.569	
*LLCI=Lower limit of 95% bootstrap confidence interval						
**ULCI=Upper limit of 95% bootstrap confidence interval						

The conditional direct effect of parental abuse on aggression was statistically significant only for adolescents with low (M - 1SD) and moderate (M) levels of self-esteem, as the bootstrap confidence intervals did not include zero for these groups. In other words, as self-esteem increased, the conditional direct effect of parental abuse on aggression decreased, and for adolescents with high self-esteem (M + 1SD), the effect of parental abuse on aggression was not significant (see Table 6).

Furthermore, the conditional indirect effects of parental abuse on aggression through depression were significant across all three levels of self-esteem (M, M ± 1SD), as the 95% bootstrap confidence

intervals did not include zero. This finding confirms the presence of a moderated mediation effect of self-esteem on the pathway from parental abuse to aggression via adolescent depression (see Table 6).

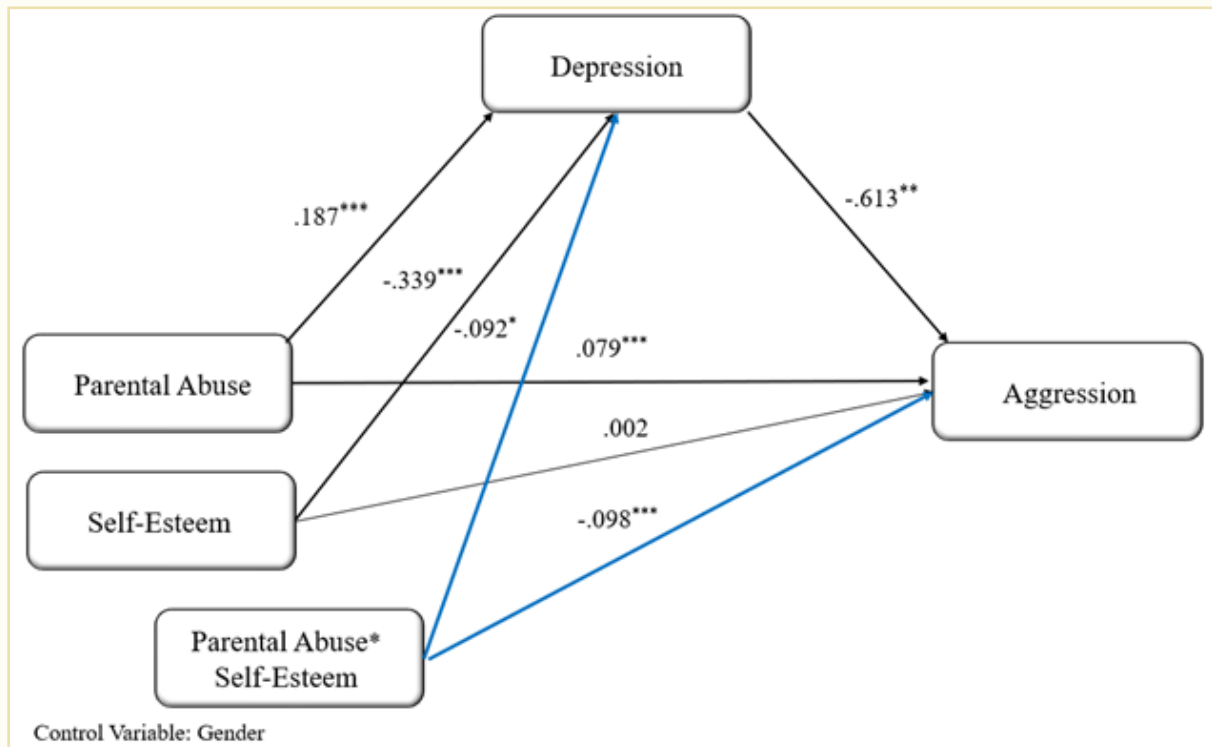


Figure 2 Statistical Model of the Moderated Mediation Effect of Self-Esteem (* $p < .05$, *** $p < .001$)

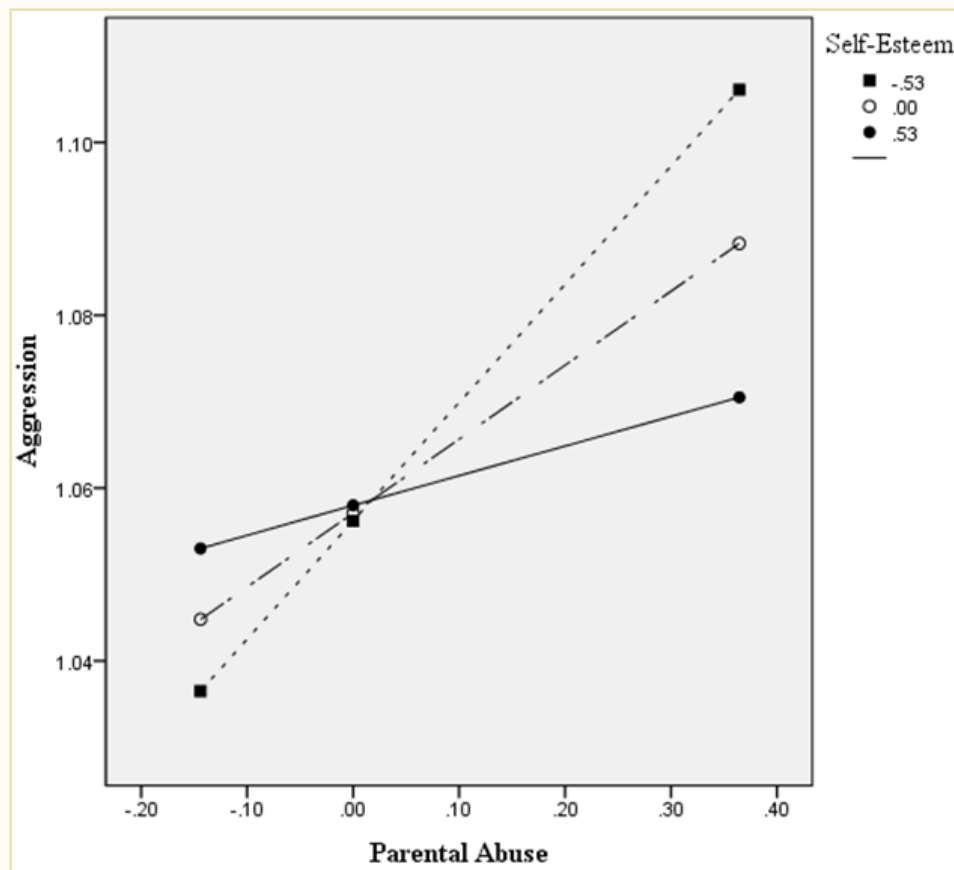


Figure 3 Moderating Effect of Self-Esteem

Table 6 Significance Test of the Conditional Direct and Indirect Effects of Parental Abuse
<N=1,326>

Conditional Direct Effects of Parental Abuse on Aggression (Moderated by Self-Esteem)						
Self-Esteem	Effect	SE	t Value	p	LLCI	ULCI
-.526(M-1SD)	.137	.017	8.079	.000	.104	.170
.000(M)	.086	.014	6.009	.000	.058	.114
.526(M+1SD)	.034	.019	1.842	.066	-.002	.071

Parental Abuse → Depression → Aggression (Conditional Indirect Effect)				
Self-Esteem	Effect	BootSE	BootLLCI	BootULCI
-.526(M-1SD)	.019	.008	.007	.036
.000(M)	.015	.006	.005	.029
.526(M+1SD)	.011	.005	.003	.024

*LLCI=Lower Limit of the 95% Confidence Interval of the bootstrapped indirect effect
 **ULCI=Upper Limit of the 95% Confidence Interval of the bootstrapped indirect effect

DISCUSSION

This study aims to examine the moderated mediation role of self-esteem in the pathway from parental abuse to adolescent aggression. Data from 1,326 first-year middle school students participating in the 14th wave of the Panel Study on Korean Children (PSKC) were analyzed. This longitudinal study tracks children born in 2008 annually. Data analyses were conducted using SPSS 24.0 and the PROCESS macro 4.2 (Model 8).

First, adolescents reported low levels of parental abuse, aggression, and depression, but relatively high self-esteem.

Second, the findings demonstrated that depression partially mediated the relationship between parental abuse and adolescent aggression, corroborating prior research that identifies depression as a significant psychological consequence of child maltreatment [7; 12]. Specifically, adolescents exposed to higher levels of parental abuse showed elevated depressive symptoms, which in turn increased aggressive behaviors as a maladaptive coping strategy [13]. This mediating pathway aligns with theoretical frameworks suggesting that internalizing symptoms like depression impair emotional regulation and foster negative self-perceptions, ultimately contributing to externalizing problems [14; 15].

Third, self-esteem functioned as a significant moderator in the direct effect of parental abuse on adolescent aggression. Specifically, adolescents exhibiting high levels of self-esteem demonstrated a buffering or protective effect, attenuating the positive association between abuse and aggression. Conversely, low self-esteem exacerbated the risk, intensifying aggressive responses to abusive experiences. This moderating effect corroborates prior research emphasizing the protective capacity of self-esteem against maladaptive behavioral outcomes in the context of adverse childhood experiences [18; 19].

Fourth, the study revealed a moderated mediation effect wherein self-esteem conditioned the indirect pathway from parental abuse to aggression via depression. The conditional indirect effects were statistically significant across low, moderate, and high self-esteem levels, but notably, the magnitude of this indirect effect diminished as self-esteem increased. These results suggest that self-esteem not only moderates the direct impact of abuse on aggression but also buffers the mediating influence of depression. This finding expands upon theoretical frameworks positing self-esteem as a critical resilience factor within developmental psychopathology models [22; 23].

CONCLUSION

This study elucidated the complex interplay between parental abuse, depression, self-esteem, and adolescent aggression, contributing to a more nuanced understanding of these psychological processes.

Firstly, self-esteem emerges as a salient moderating variable that buffers the detrimental effects of parental abuse on aggressive behaviors. Adolescents with higher self-esteem appear more resilient, experiencing attenuated aggression despite abuse exposure, while those with lower self-esteem are more vulnerable to adverse behavioral outcomes.

Secondly, depression was found to partially mediate the relationship between parental abuse and adolescent aggression, indicating that parental abuse increases depressive symptoms, which in turn contribute to elevated aggression. This finding underscores depression as a key psychological mechanism linking adverse early experiences to externalizing behaviors. Future studies should investigate additional mediators to develop a more comprehensive understanding of the mechanisms underlying the impact of parental abuse on adolescent aggression.

Thirdly, the moderated mediation model indicates that enhancing self-esteem can diminish the indirect adverse effect of parental abuse on aggression via depression. This highlights self-esteem's integral role in fostering psychological resilience and suggests potential avenues for targeted prevention and intervention strategies.

From a practical perspective, these findings advocate for multi-tiered intervention frameworks. Primary prevention efforts should focus on reducing parental abuse through comprehensive parent education, community support systems, and effective child protection policies. Secondary interventions should prioritize psychological support to elevate self-esteem and treat depressive symptoms among adolescents exposed to abuse. Such efforts may involve tailored cognitive-behavioral therapy, resilience training, and school-based mental health programs.

Finally, addressing adolescent aggression holistically is critical given its implications for school violence, delinquency, and long-term social maladjustment. Policymakers and practitioners must continue to develop integrated strategies combining legal reforms, school safety initiatives, and psychosocial support services to curtail aggression and promote healthy adolescent development.

REFERENCES

1. WHO. Global Status Report on Preventing Violence Against Children 2020. World Health Organization, 2020. Available at: <https://www.who.int/publications/i/item/9789240004191> (accessed 31 May 2025).
2. UN. World Report on Violence Against Children. United Nations, 2006. Available at: <https://digitallibrary.un.org/record/587334?ln=en&v=pdf> (accessed 31 May 2025).
3. Ministry of Health and Welfare. Key Statistics on Child Abuse in 2023. Ministry of Health and Welfare, 2023. Available at: https://www.mohw.go.kr/board.es?mid=a10411010200&bid=0019&act=view&list_no=1482961 (accessed 31 May 2025).
4. Collishaw S., Pickles A., Messer J., Rutter M., Shearer C., Maughan B. Resilience to Adult Psychopathology Following Childhood Maltreatment: Evidence From a Community Sample. *Child Abuse & Neglect*, 2007, vol. 31, no. 3, pp. 211–229. DOI: 10.1016/j.chiabu.2006.07.005
5. Kernis S. J., Harjai K. J., Stone G. W., Grines L. L., Boura J. A., Yerkey M. W., Grines C. L. The Incidence, Predictors, and Outcomes of Early Reinfarction After Primary Angioplasty for Acute Myocardial Infarction. *Journal of the American College of Cardiology*, 2003, vol. 42, no. 7, pp. 1173–1177. DOI: 10.1016/s0735-1097(03)00920-3
6. Angelakis I., Austin J. L., Gooding P. A. Association of Childhood Maltreatment With Suicide Behaviours Among Young People: A Systematic Review and Meta-Analysis. *JAMA Network Open*, 2020, vol. 3, no. 8, e2012563. DOI: 10.1001/jamanetworkopen.2020.12563
7. Norman R. E., Byambaa M., De R., Butchart A., Scott J., Vos T. The Long-Term Health Consequences of Child Physical Abuse, Emotional Abuse, and Neglect: A Systematic Review and Meta-Analysis. *PLoS Medicine*, 2012, vol. 9, no. 11, e1001349. DOI: 10.1371/journal.pmed.1001349
8. Bosman R. C., Conde J., Blázquez-Romero M., García-Nieto R. The Relationship Between Childhood Maltreatment and Adolescent Mental Health in Deaf and Hard-of-Hearing Youth. *Frontiers in Psychology*,

- 2023, vol. 14, 1287741. DOI: 10.3389/fpsyg.2024.1287741
9. Paek S. A., Choi W. S. A Study on the Relationship Between Childhood and Adolescent Maltreatment Experiences and Depression and Anxiety, Aggression, and Self-Esteem. *The Journal of Learner-Centered Curriculum and Instruction*, 2025, vol. 25, no. 1, pp. 917–930. DOI: 10.22251/jlcci.2025.25.1.917
10. Scannapieco M., Connell-Carrick K. Understanding Child Maltreatment: An Ecological and Developmental Perspective. Oxford University Press, 2005. DOI: 10.1093/acprof:oso/9780195156782.001.0001
11. Broidy, L. M., Nagin, D. S., Tremblay, R. E., Bates, J. E., Brame, B., Dodge, K. A., Fergusson, D., Horwood, L. J., Loeber, R., Laird, R. D., Lynam, D. R., Moffitt, T. E., Pettit, G. S., & Vitaro, F. Developmental Trajectories of Childhood Disruptive Behaviors and Adolescent Delinquency: A Six-Site, Cross-National Study. *Developmental Psychology*, 2003, vol. 39, no. 2, pp. 222–245. DOI: 10.1037//0012-1649.39.2.222
12. Kang J. Y., Kim J. W., Kang M. J. Longitudinal Effects of Parental Maltreatment on Peer Trust in Early Adolescence: Mediating Effects of Ego-Identity, Self-Esteem, and Depression. *Korean Journal of Child Studies*, 2022, vol. 43, no. 4, pp. 455–469. DOI: 10.5723/kjcs.2022.43.4.455
13. Wolff J. C., Ollendick T. H. The Comorbidity of Conduct Problems and Depression in Childhood and Adolescence. *Clinical Child and Family Psychology Review*, 2006, vol. 9, pp. 201–220. DOI: 10.1007/s10567-006-0011-3
14. Asgeirsdottir, B. B., Gudjonsson, G. H., Sigfusdottir, I. D., & Sigurdsson, J. F. Protective processes for depressed mood and anger among sexually abused adolescents: The importance of self-esteem. *Personality and Individual Differences*, 2010, vol. 49, no. 5, pp. 402–407. DOI: 10.1016/j.paid.2010.04.007
15. Li S., Zhao F., Yu G. Childhood Emotional Abuse and Depression Among Adolescents: Roles of Deviant Peer Affiliation and Gender. *Child Abuse & Neglect*, 2022, vol. 118, article 105169. DOI: 10.1177/0886260520918586.
16. Lin S., Cheng G., Sun S., Feng M., Bai X. Emotional Regulation of Displaced Aggression in Provocative Situations among Junior High School Students. *Behavioral Sciences*, 2024, vol. 14, no. 6, article 500. DOI: 10.3390/bs14060500
17. Lee H. J., Yoo J. P. Effects of Experience of Violence and Abuse Victimization on Aggression Among Children and Adolescents: Based on Depression-Anxiety as Mediators. *Mental Health & Social Work*, 2022, vol. 50, no. 1, pp. 30–52. DOI: 10.24301/MHSW.2022.03.50.1.30
18. Harris M. A., Orth U. The Link Between Self-Esteem and Social Relationships: A Meta-Analysis of Longitudinal Studies. *Journal of Personality and Social Psychology*, 2020, vol. 119, no. 6, pp. 1459–1477. DOI: 10.1037/pspp0000265
19. Mier C., Ladny R. T. Does Self-Esteem Negatively Impact Crime and Delinquency? A Meta-Analytic Review of 25 Years of Evidence. *Deviant Behavior*, 2018, vol. 39, no. 8, pp. 1006–1022. DOI: 10.1080/01639625.2017.1395667
20. Donnellan M. B., Trzesniewski K. H., Robins R. W., Moffitt T. E., Caspi A. Low Self-Esteem Is Related to Aggression, Antisocial Behavior, and Delinquency. *Psychological Science*, 2005, vol. 16, no. 4, pp. 328–335. DOI: 10.1111/j.0956-7976.2005.01535.x
21. Trzesniewski K. H., Donnellan M. B., Moffitt T. E., Robins R. W., Poulton R., Caspi A. Low Self-Esteem During Adolescence Predicts Poor Health, Criminal Behavior, and Limited Economic Prospects During Adulthood. *Developmental Psychology*, 2006, vol. 42, no. 2, pp. 381–390. DOI: 10.1037/0012-1649.42.2.381
22. Hu Y., Cai Y., Wang R., Gan Y., He N. The Relationship Between Self-Esteem and Aggressive Behavior Among Chinese Adolescents: A Moderated Chain Mediation Model. *Frontiers in Psychology*, 2023, vol. 14, article 1191134. DOI: 10.3389/fpsyg.2023.1191134
23. Yang J., Zeng X., Wang X. Associations Among Parental Phubbing, Self-Esteem, and Adolescents' Proactive and Reactive Aggression: A Three-Year Longitudinal Study in China. *Journal of Youth and Adolescence*, 2023, advance online publication. DOI: 10.1007/s10964-023-01850-2
24. Kernis M. H., Grannemann B. J., Mathis J. S. Stability and Level of Self-Esteem as Predictors of Anger Arousal and Hostility. *Journal of Personality and Social Psychology*, 2005, vol. 73, no. 6, pp. 1569–1581. DOI: 10.1037/0022-3514.73.6.1569
25. Trzesniewski K. H., Donnellan M. B., Robins R. W. Stability of Self-Esteem Across the Lifespan. *Journal of Personality and Social Psychology*, 2003, vol. 84, no. 1, pp. 205–220. DOI: 10.1037/0022-3514.84.1.205
26. Kim J., Kim E., Lee Y. Structural Relationships Among Self-Esteem, Depression, Anxiety, and Aggression in Middle School Students. *Korean Journal of Counseling and Psychotherapy*, 2017, vol. 29, no. 1, pp. 1–16. DOI: 10.21193/kjcp.2017.29.1.001
27. Korea Institute of Child Care and Education. User Guide for the Panel Study on Korean Children (PSKC), Waves 8 to 14. Korea Institute of Child Care and Education, 2023. Available at: https://panel.kicce.re.kr/pskc/module/rawDataManage/index.do?menu_idx=56 (accessed 25 January 2025).
28. Hayes A. F. An Index and Test of Linear Moderated Mediation. *Multivariate Behavioral Research*, 2015, vol. 50, no. 1, pp. 1–22. DOI: 10.1080/00273171.2014.962683.
29. Kim H.-J., Tajuddin N. Multicollinearity and Misleading Statistical Results. *Korean Journal of Anesthesiology*, 2019, vol. 72, no. 3, pp. 231–238. DOI: 10.4097/kja.d.19.00120
30. O'Brien R. M. A Caution Regarding Rules of Thumb for Variance Inflation Factors. *Quality & Quantity*, 2007, vol. 41, no. 5, pp. 673–690. DOI: 10.1007/s11135-006-9018-6

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