



## Gender Disparities in Adolescent Aggression: An Examination of Reactive and Proactive Tendencies

<sup>1</sup>Madiha Nasir-Email- [madihanasir@gmail.com.pk](mailto:madihanasir@gmail.com.pk)

<sup>2</sup>Dr. Abida Perveen -Email- [abida.masood@gscwu.edu.pk](mailto:abida.masood@gscwu.edu.pk)

<sup>3</sup>Dr Saira Sadiq -Email- [Sairasadiq098@gmail.com](mailto:Sairasadiq098@gmail.com)

<sup>4</sup>Fareeha Khalid -Email- [Khalidfareeha14@gmail.com.pk](mailto:Khalidfareeha14@gmail.com.pk)

<sup>1</sup>Department of Applied Psychology Govt Sadiq College Women University Bahawalpur, Pakistan

<sup>2</sup>Lecturer, Department of Applied Psychology Govt Sadiq College Women University Bahawalpur, Pakistan.

<sup>3</sup>Psychologist Special Education Centre Shujabad, Multan.

<sup>4</sup>Department of Applied Psychology Govt Sadiq College Women University Bahawalpur, Pakistan.

### Article Details:

Received on 10 July 2025

Accepted on 26 July 2025

Published on 22 Aug 2025

Corresponding Authors\*:

[abida.masood@gscwu.edu.pk](mailto:abida.masood@gscwu.edu.pk)

This study examines gender disparities in adolescent aggression, focusing on reactive and proactive tendencies. A sample of 300 adolescents (150 males, 150 females) aged 10–21 years was assessed using the Reactive–Proactive Aggression Questionnaire (Raine, 2006). Pearson correlation and independent samples t-tests were used for data analysis. Results revealed a moderate to strong positive correlation between reactive and proactive aggression. Males scored significantly higher on reactive aggression compared to females, while no significant gender difference was found in proactive aggression. These findings highlight the importance of gender-sensitive interventions for aggression prevention and suggest future research should include longitudinal designs and socio-environmental factors.



## Introduction

Adolescent aggression behaviours intended to harm others physically or psychologically poses significant risks to personal well-being, mental health, and societal stability. It can take multiple forms, including physical violence, verbal hostility, relational aggression, and cyberbullying. Research has shown consistent gender differences: males often display more overt and reactive aggression, whereas females may engage more in relational and indirect forms (Archer, 2018). Reactive aggression is impulsive, emotion-driven, and often triggered by perceived threats or provocations. In contrast, proactive aggression is deliberate and goal-oriented, used as a means to achieve a desired outcome (Raine et al., 2018). Understanding these distinctions is essential for designing interventions that address the unique needs of male and female adolescents. Despite global research on aggression, studies exploring these dynamics in South Asian contexts, particularly in Pakistan, remain limited. This study aims to address this gap by examining gender differences in reactive and proactive aggression among adolescents.

Aggression is a complex construct with multiple theoretical explanations. Social Learning Theory (Bandura, 1973) emphasizes the role of observational learning and reinforcement in the development of aggressive behaviors. The Cognitive Neo-Association Model (Berkowitz, 1993) suggests that environmental cues can trigger aggressive responses, particularly reactive aggression. Recent studies (Dinić & Raine, 2019; Jung et al., 2017) have reinforced the distinction between reactive and proactive aggression, noting that each is influenced by different psychological and situational factors. Research indicates that males are more prone to reactive aggression due to biological, hormonal, and socialization differences (Archer, 2018; Fite et al., 2016). However, findings on proactive aggression are inconsistent, with some studies reporting no gender differences (Murray-Close et al., 2020). In Pakistan, socio-cultural norms, exposure to violence, and limited access to mental health resources may influence aggression patterns. Yet, empirical evidence from this region is scarce, making this study an important contribution.

## Methodology

**Research Design:** This quantitative study employed a cross-sectional design.

**Sample:** The study included 300 adolescents (150 males, 150 females) aged 10–21 years from Bahawalpur, Pakistan, selected through stratified random sampling to ensure equal gender representation.

**Instrument:** Aggression was measured using the Reactive–Proactive Aggression Questionnaire (Raine, 2006), a validated self-report tool.

**Procedure:** Participants completed the questionnaire in supervised sessions. Informed consent was obtained from all participants and their guardians.

**Data Analysis:** Pearson correlation was used to examine the relationship between reactive and proactive aggression. Independent samples t-tests were conducted to identify gender differences.

## Results

The study analyzed the demographic characteristics of the respondents, correlations between reactive and proactive aggression, and gender differences using independent samples t-tests.



**Table 1** presents the demographic details of the 300 respondents. Participants were evenly split between males and females (50% each). Most belonged to the middle socioeconomic class (89.7%), while only 7.3% came from the lower class and 3.0% from the upper class. The age distribution indicated that 46% were in middle adolescence (14–17 years) and 54% were in late adolescence (18–21 years).

**Table 1**  
*Demographic characteristics*

Variable	Category	Frequency (f)	Percentage (%)
Age Group	14–17 years	138	46.0
	18–21 years	162	54.0
Gender	Male	150	50.0
	Female	150	50.0
Socioeconomic Status	Lower class	22	7.3
	Middle class	269	89.7
	Upper class	9	3.0
Education Level	Secondary	52	17.3
	Higher Secondary	212	70.7
	Undergraduate	36	12.0

### Correlation

To examine the relationship between reactive and proactive aggression, Pearson's correlation coefficient was calculated. A statistically significant moderate positive correlation was found, indicating that adolescents with higher reactive aggression also tended to report higher proactive aggression.

**Table 2**  
*Correlation*

Variables	RA	PA	Mean	Std. Deviation
Reactive aggression	1	.481**	8.45	3.85
Proactive aggression	.481**	1	6.57	4.42

\*\*Correlation is significant at the 0.01 level (2-tailed).

Analysis revealed a statistically significant positive correlation ( $r = 0.48$ ,  $p < .01$ ) between reactive and proactive aggression, indicating that adolescents who scored high on one type of aggression were likely to score high on the other.



Table 3  
Independent Samples t-Test

Variables	Males (n=150)		Females (n=150)		t	p	95% CI	
	M	SD	M	SD			LL	UL
Proactive aggression	6.740	5.166	6.400	3.542	.665	.507	-.666	1.34
Reactive aggression	7.340	3.628	9.573	3.753	-5.240	.000	-3.07	-1.39

Independent samples t-tests showed that males scored significantly higher in reactive aggression compared to females ( $p < .05$ ). No significant gender difference was found in proactive aggression.

Discussion

The findings confirm the hypothesis that reactive and proactive aggression are moderately to strongly correlated in adolescents. This supports previous research indicating that while conceptually distinct, the two aggression types often co-occur (Raine et al., 2018).

The higher levels of reactive aggression among males may be attributed to greater exposure to competitive or confrontational environments, combined with biological predispositions. The absence of gender differences in proactive aggression suggests that deliberate, goal-driven aggression may be shaped more by environmental and cultural contexts than by gender.

These results highlight the importance of designing gender-sensitive interventions. Programs addressing reactive aggression in males and relational aggression in females could be particularly effective.

Conclusion

This study contributes to the literature on adolescent aggression by providing evidence from Pakistan. The results underscore the interconnectedness of reactive and proactive aggression and reveal gender differences only in reactive aggression. Future studies should adopt longitudinal designs, consider socio-economic and cultural factors, and test targeted intervention strategies.

References

Archer, J. (2018). The reality and evolutionary significance of human psychological sex differences. *Biological Reviews*, 94(1), 138–158. <https://doi.org/10.1111/brv.12448>

Dinić, B. M., & Raine, A. (2019). An examination of the Reactive–Proactive Aggression Questionnaire in adults and its relations to psychopathy and aggression. *Aggressive Behavior*, 45(6), 565–572. <https://doi.org/10.1002/ab.21843>

Fite, P. J., Evans, S. C., Cooley, J. L., & Rubens, S. L. (2016). Further evaluation of associations between proactive and reactive aggression and indicators of psychopathology. *Journal of Abnormal Child Psychology*, 44(7), 1259–1271. <https://doi.org/10.1007/s10802-015-0125-4>



- Jung, H., Herrenkohl, T. I., Klika, J. B., Lee, J. O., & Brown, E. C. (2017). Does child maltreatment predict adult crime? *Journal of Interpersonal Violence*, 32(3), 349–367. <https://doi.org/10.1177/0886260515586378>
- Murray-Close, D., Ostrov, J. M., & Crick, N. R. (2020). Proactive and reactive aggression: Differential relations to empathy, emotion regulation, and peer relationships. *Journal of Abnormal Child Psychology*, 48(5), 657–670. <https://doi.org/10.1007/s10802-019-00609-0>
- Raine, A., Dodge, K., Loeber, R., Gatzke-Kopp, L., Lynam, D., Reynolds, C., & Liu, J. (2018). The Reactive–Proactive Aggression Questionnaire: Differential correlates in adolescent boys. *Aggressive Behavior*, 44(2), 159–171. <https://doi.org/10.1002/ab.21742>
- Walters, G. D. (2015). Proactive and reactive aggression: A meta-analysis of the differential relations with antisocial behavior. *Journal of Abnormal Child Psychology*, 43(6), 1045–1063. <https://doi.org/10.1007/s10802-015-0022-6>
- Fanti, K. A., Demetriou, A. G., & Hawa, V. V. (2018). Understanding proactive and reactive aggression subtypes: Validation of the Reactive–Proactive Aggression Questionnaire in Greek children. *Journal of Abnormal Child Psychology*, 46(1), 47–61. <https://doi.org/10.1007/s10802-017-0286-6>