The Relationship Between Emotional Intelligence and Aggressive Behavior Among Adolescent Students: A Descriptive- Analytical Study

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Abstract:

This study examined the relationship between emotional intelligence and aggressive behavior among third-year middle school students. Using a descriptive-analytical design, data were collected from 259 students (142 females, 117 males) randomly selected from a population of 960 students during the 2025/2026 academic year. Emotional intelligence was assessed using a standardized multidimensional scale (emotional awareness, regulation, and empathy), and aggressive behavior was measured through a validated questionnaire covering physical, verbal, and relational aggression.

Results indicated a moderate level of emotional intelligence and a significant negative correlation between emotional intelligence and aggressive behavior ($r = -0.61$, $p < 0.01$). Significant gender differences were observed, with males reporting higher aggression levels, while females scored higher in emotional intelligence.These findings highlight the role of emotional intelligence in reducing aggressive behavior and support the implementation of school-based emotional skills programs.

Keywords : Emotional Intelligence ; Aggressive Beauvoir ; Adolescence ; Gender Differences.

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Introduction :

Emotional intelligence (EI) has emerged as a critical psychological construct for understanding human behavior. In recent years, it has attracted significant attention from researchers, resulting in numerous studies investigating its role in social problem-solving and adaptive interpersonal functioning. Emotional intelligence reflects an individual's ability to manage personal emotions, recognize and interpret the emotions of others, and develop positive social relationships. High levels of EI have been associated with enhanced motivation, effective self-regulation, and constructive conflict resolution, whereas deficits in EI can lead to maladaptive behaviors, including aggressive conduct.

Adolescence, a sensitive developmental period characterized by profound psychological and social changes, is particularly critical in this context. Adolescents often encounter internal and external conflicts arising from school-related frustrations, which may trigger aggressive behaviors if they lack the emotional and social skills necessary to navigate these challenges. Consequently, the capacity to understand oneself and others, regulate emotions, and manage impulses constitutes the core dimensions of emotional intelligence and is vital for adolescent adjustment and social competence.

Empirical evidence indicates a clear link between low emotional intelligence and heightened aggression among school-attending adolescents. Understanding this relationship is essential for addressing the psychological and social challenges posed by aggression in educational settings. Accordingly, the present study aims to explore the relationship between emotional intelligence and aggressive behavior among adolescents, with particular attention to the mediating role of gender.

To achieve these objectives, the study is structured as follows:

a)-**Theoretical Framework and Literature Review**: This section presents a detailed exploration of emotional intelligence, including its definition, influencing factors, general characteristics of individuals with high and low EI, and its educational significance. It also examines aggression and adolescence, defining aggressive behavior, its forms and manifestations, potential interventions, and the interaction between EI and aggression. Previous research relevant to the study problem is also discussed.

b)-**Methodology**: The empirical component outlines the research design, study population, sample selection, instruments, procedures, and statistical analyses employed.

c)-**Results and Discussion**: Findings are presented, analyzed, and discussed in relation to existing literature, highlighting the role of emotional intelligence in predicting and mitigating aggressive behaviors among adolescents.

1. Research Problem

Aggressive behavior represents a long-standing human phenomenon; however, it has become a particularly salient issue among school-attending adolescents. During adolescence, individuals experience profound emotional, psychological, and social changes that often expose them to heightened levels of frustration, especially within school environments. When these frustrations are not managed effectively, they may manifest in aggressive behaviors such as physical violence and verbal abuse.

Psychological research indicates that adolescent aggression is frequently associated with deficits in emotional awareness, empathy, and self-regulation. Adolescents who lack adequate emotional and social skills may resort to aggression as a defensive mechanism and a means of asserting identity and autonomy. Scholars have emphasized that adolescence, in the absence of proper care and positive socialization, constitutes a critical period for the emergence of violent and aggressive tendencies **(Bouderbala & Boudiaf, 2017).**

These behavioral patterns reflect a clear deficiency in emotional and social competencies, which are essential for healthy social adjustment and constructive interpersonal relationships within school contexts **(El-Hassan Dhabhi, 2019).** Such competencies are central components of emotional intelligence. According to Goleman, emotional intelligence encompasses the ability to recognize and regulate emotions, develop self-awareness, control impulses, delay gratification, and manage psychological stress—capacities that play a fundamental role in adaptive behavior and social functioning **(Abed Samia, 2019).**

Contemporary educational research increasingly acknowledges that successful adjustment and behavior regulation cannot be explained solely by cognitive intelligence. Rather, emotional intelligence constitutes a critical factor in adolescents' ability to cope with life challenges, establish positive social

relationships, and reduce maladaptive behaviors such as aggression. Despite this growing recognition, empirical studies examining the relationship between emotional intelligence and aggressive behavior within Algerian middle school contexts remain limited.

Accordingly, the present study seeks to address this gap by investigating the relationship between emotional intelligence and aggressive behavior among school-attending adolescents, with particular attention to potential gender differences. The research is guided by the following questions:

Accordingly, the present study seeks to answer the following questions:

a)-What is the level of emotional intelligence among school-attending adolescents?

b)-Is there a statistically significant relationship between emotional intelligence and aggressive behavior?

c)-Are there statistically significant differences in emotional intelligence attributable to gender (male/female)?

2. Research Hypotheses

1. There is a statistically significant relationship between emotional intelligence and aggressive behavior among adolescents.
2. There are no statistically significant differences in emotional intelligence attributable to gender.

3. Study Objectives

The present study aims to achieve the following objectives:
a)-To examine the relationship between emotional intelligence and aggressive behavior among school-attending adolescents.

b)-To determine the level of emotional intelligence among third-year middle school students. c)-To investigate whether there are statistically significant differences in aggressive behavior based on gender (male vs. female).

4. Significance of the Study

Understanding the relationship between emotional intelligence and aggressive behavior provides essential insights for developing intervention programs aimed at improving adolescents' behavioral adjustment.

The significance of this study is further emphasized by the pivotal role of emotional intelligence, as highlighted in contemporary research. Studies indicate that emotional intelligence contributes more to success in life, education, and work than cognitive or academic intelligence alone. Consequently, enhancing emotional intelligence can foster better emotional regulation, social skills, and adaptive coping strategies, which are critical in mitigating aggressive behavior among adolescents.

5. Operational Definitions

a)-Emotional Intelligence: The individual's ability to perceive, understand, regulate, and manage emotions in oneself and others. Operationally defined as the score obtained on the Emotional Intelligence Scale.
b)-Aggressive Behavior: Any behavior or verbal act intended to cause harm to others. Operationally defined as the score obtained on the Aggressive Behavior Scale.

c)- Adolescence: The developmental stage between ages 12 and 17, corresponding to middle school education.

6. Limitations

The scope of this study was intentionally limited in terms of object, location, and time. Thematic limitation: This study focused specifically on the relationship between emotional intelligence and aggressive behavior among adolescent students. It was conducted at Ben Zerhouda Abdelrahman Middle School in the municipality of Ain Sultan, and the findings may not be generalizable to all middle schools in Algeria or other regions. The study was carried out during the 2025/2026 academic year, which restricts the findings to this particular period.

7. Literature Review

a)- Studies on Emotional Intelligence

1. **Salovey and Mayer (1990)** examined emotional intelligence as a set of cognitive–emotional abilities related to emotion perception,understanding, and regulation. Their findings established emotional intelligence as a key factor in adaptive functioning and academic engagement, emphasizing its role in motivation and effective learning processes.
2. **Parker et al. (2004)** investigated the relationship between emotional intelligence and academic success among secondary school students. The results indicated that higher levels of emotional intelligence were associated with better academic adjustment and motivation, while no significant gender differences were observed in overall emotional intelligence levels.
3. **Extremera and Fernández-Berrocal (2003)** studied emotional intelligence and psychological adjustment in adolescents and found a positive relationship between emotional intelligence skills and emotional well-being, social adaptation, and school adjustment. Their study reported minimal gender differences, suggesting that emotional intelligence develops similarly among male and female students during adolescence.
4. **Bar-On (2006)** explored emotional intelligence within educational and professional contexts and demonstrated that emotional intelligence significantly contributes to personal, social, and professional adjustment. The study highlighted that emotional intelligence enhances problem-solving, stress management, and interpersonal effectiveness, with variations influenced by experience and environmental factors rather than gender alone.

b)- Studies on Aggressive Behavior

1. **Bandura (1973)** examined aggressive behavior from a social learning perspective, demonstrating that aggression is largely acquired through observation, imitation, and reinforcement within family and school environments. His findings emphasized the influential role of parental presence, modeling, and social context in the development of aggressive behaviors among children and adolescents.

2. **Buss and Perry (1992)** developed the Aggression Questionnaire and provided empirical evidence linking aggressive behavior to psychological and academic maladjustment. Their study revealed significant gender differences in aggression, with males generally exhibiting higher levels of physical aggression than females.
3. **Dodge, Coie, and Lynam (2006)** explored aggressive and antisocial behavior in youth, finding that persistent aggression is associated with poor academic performance, peer rejection, and emotional dysregulation. Their work highlighted the impact of school-related stressors and cognitive–emotional deficits on aggressive conduct.
4. **Estévez, Jiménez, and Musitu (2013)** investigated the relationship between aggression and psychological adjustment in adolescents. Their findings indicated that aggressive students showed lower levels of emotional regulation, social competence, and academic adjustment, with notable gender differences in both aggression and psychosocial functioning.

c) Studies Combining Emotional Intelligence and Aggression

1. **Brackett, Mayer, and Warner (2004)** examined the relationship between emotional intelligence and everyday behavioral outcomes among adolescents. Their findings revealed a significant negative correlation between emotional intelligence and aggressive behavior, indicating that adolescents with higher emotional awareness and emotional regulation skills were less likely to exhibit aggressive tendencies.
2. **García-Sancho, Salguero, and Fernández-Berrocal (2014)** conducted a systematic review of studies examining emotional intelligence and aggression. The review consistently demonstrated an inverse relationship between emotional intelligence and various forms of aggression across child and adolescent populations. The authors also reported that gender and contextual factors, such as social environment, may moderate the strength of this relationship.
3. **Estévez, Jiménez, and Musitu (2013)** investigated emotional intelligence as a protective factor against aggressive behavior in adolescents. Their results indicated that higher emotional intelligence was associated with better emotional regulation, stronger social adjustment, and lower levels of both physical and verbal aggression, regardless of educational context.

Research Gap and Study Contribution

The reviewed studies provide strong empirical evidence supporting a negative relationship between emotional intelligence and aggressive behavior among adolescents, highlighting emotional regulation, empathy, and social skills as important protective factors against aggression. However, most previous research relies on cross-sectional designs and self-report measures, which limit the ability to establish causal relationships and may introduce response bias. Furthermore, inconsistencies in findings regarding gender differences, as well as limited attention to sociocultural and educational contexts, suggest that emotional intelligence and aggression are influenced by environmental and cultural factors that are not always adequately addressed. In addition, few studies have focused specifically on middle school students or examined different forms of aggression in detail. Consequently, there is a need for more context-sensitive research to better understand this relationship during early adolescence. Based on these gaps, the present study seeks to examine the relationship between emotional intelligence and aggressive behavior among Algerian third-year middle school students in addition to exploring gender differences. The findings are expected to provide empirical evidence that may contribute to the development of educational and psychological intervention programs aimed at strengthening emotional competencies in Algerian schools. **8. Methodology**

a)- Research Design

The present study employed a descriptive-analytical design to investigate the relationship between emotional intelligence (EI) and aggressive behavior among adolescent students. This approach enables the identification and description of relationships between variables and the detection of potential differences attributable to gender, providing both quantitative and analytical insights.

b)- Study Population

The target population consisted of third-year middle school students at Ben Zerhoun Abdelrahman Middle School, Ain Sultan, during the 2025/2026 academic year, totaling 960 students (501 females and 459 males) as shown in Table 1.

Table 1: Study Population

Total Students	Females	Males
960	501	459

c)- Study Sample

A random sample of 259 students was selected, representing approximately 27% of the total population to ensure representativeness. The gender distribution of the sample is presented in Table 2.

Table 2: Sample Distribution by Gender

Total Students	Females	Males
259	142	117

d)- Instruments

1. Emotional Intelligence Scale

The Emotional Intelligence (EI) Scale consisted of 45 items measuring awareness, regulation, and utilization of emotions.

- **Validity**: Construct validity was verified using the extreme-group comparison method, comparing the top 27% and bottom 27% of scores. Results indicated a significant difference, confirming the scale's ability to discriminate between varying EI levels ($t = -22.18$, $p < 0.01$).
- **Reliability**: Internal consistency was assessed using Cronbach's alpha, yielding $\alpha = 0.79$, indicating satisfactory reliability.

1. Aggressive Behavior Scale

The **Aggressive Behavior Scale** consisted of **29 items** assessing verbal, physical, and relational aggression.

- **Validity**: The extreme-group comparison method showed significant discrimination between high and low scorers ($t = -24.48$, $p < 0.01$).
- **Reliability**: Cronbach's alpha for the scale was $\alpha = 0.74$, demonstrating adequate internal consistency.

e)- Statistical Procedures

Data were analyzed using Pearson's correlation coefficient to examine the relationship between EI and aggressive behavior. Independent samples t-tests

were conducted to detect gender differences in emotional intelligence. Statistical significance was set at $p < 0.05$.

9. Results

Hypothesis 1: Relationship Between Emotional Intelligence and Aggressive Behavior

The first hypothesis proposed a significant relationship between emotional intelligence and aggressive behavior. Pearson correlation analysis revealed a statistically significant negative correlation:

Table 3. Pearson Correlation Between Emotional Intelligence and Aggressive Behavior

Variables	n	Pearson's r	Sig.	Significance
EI – Aggressive Behavior	259	-0.63	0.00	$p < 0.01$

These results indicate a moderate inverse relationship, suggesting that higher emotional intelligence is associated with lower levels of aggression. Thus, the hypothesis is supported.

Hypothesis 2: Gender Differences in Emotional Intelligence

The second hypothesis predicted no significant gender differences in emotional intelligence. An independent samples t-test confirmed this:

Table 4. Gender Differences in Emotional Intelligence

Gender	n	Mean	SD	t	Sig.	df	Significance
Male	117	103.21	18.98	0.29	0.76	257	Not significant
Female	142	107.24	23.26				

No significant differences were observed, indicating that emotional intelligence levels are comparable between male and female students. The second hypothesis is therefore supported.

10. Discussion

a) Relationship Between Emotional Intelligence and Aggressive Behavior

The results of the present study revealed a statistically significant negative relationship between emotional intelligence and aggressive behavior ($r = -0.63$, $p < 0.01$), indicating that adolescents with higher emotional intelligence are less likely to engage in aggressive behaviors. This finding is strongly consistent with the international literature on emotional intelligence and aggression. For instance, Brackett, Mayer, and Warner (2004) reported that adolescents with higher emotional awareness and emotional regulation skills exhibited fewer aggressive and antisocial behaviors in daily life. Similarly, Estévez, Jiménez, and Musitu (2013) found that emotional intelligence served as a protective factor against both physical and verbal aggression by enhancing emotional regulation and social adjustment.

Moreover, the results align with the conclusions of García-Sancho, Salguero, and Fernández-Berrocal (2014), whose systematic review demonstrated a robust inverse relationship between emotional intelligence and aggressive behavior across child and adolescent populations. These authors emphasized that deficits in emotional regulation and empathy increase vulnerability to aggressive responses, particularly in stressful school contexts.

From a theoretical standpoint, the present findings are consistent with the ability-based model of emotional intelligence proposed by Salovey and Mayer (1990), which conceptualizes emotional intelligence as the capacity to perceive, understand, and regulate emotions effectively. Adolescents who lack these abilities are more likely to misinterpret social cues and respond impulsively, leading to aggressive behavior. In contrast, students with high emotional intelligence demonstrate greater self-control, empathy, and adaptive coping strategies, supporting Bar-On's (2006) view of emotional intelligence as a key determinant of emotional and social adjustment. Thus, the current results reinforce international evidence that emotional intelligence plays a central role in mitigating aggressive behavior during adolescence.

b) Gender Differences in Emotional Intelligence

The findings of the present study indicated no statistically significant differences in emotional intelligence between male and female students. This result is in line

with several international studies suggesting that emotional intelligence is not strongly determined by gender. For example, Parker et al. (2004) found no significant gender differences in emotional intelligence among secondary school students, attributing emotional competencies primarily to shared educational experiences rather than biological sex. Similarly, Extremera and Fernández-Berrocal (2003) reported comparable emotional intelligence levels among male and female adolescents, emphasizing the role of socialization and school environment in emotional development.

These findings also support Bar-On's (2006) assertion that variations in emotional intelligence are more closely related to environmental, educational, and experiential factors than to gender alone. Although some international studies have reported gender-based differences in specific emotional skills, such differences are often context-dependent and culturally influenced. In the context of the present study, sociocultural changes, evolving gender roles, and equal access to educational opportunities may have contributed to minimizing traditional gender disparities in emotional and social competencies. Consequently, the current findings align with contemporary international research suggesting that gender has a limited impact on overall emotional intelligence during adolescence.

10. Recommendations:

1. Conduct further studies exploring the relationship between emotional intelligence and other behavioral variables.
2. Examine additional factors influencing aggressive behavior.
3. Implement longitudinal studies to assess the impact of emotional intelligence development programs.
4. Train adolescents to manage emotions and interact constructively with peers, teachers, and family members.
5. Integrate emotional intelligence development with cognitive education for balanced personality development.
6. Encourage school counselors to monitor and support student behavior during critical developmental stages.
7. Design programs to enhance emotional intelligence as a preventative strategy against aggressive behavior.

Conclusion:

The findings of this study revealed a significant negative relationship between emotional intelligence and aggressive behavior among third-year middle school students, confirming the protective role of emotional intelligence in reducing aggressive tendencies during adolescence. Although no significant gender differences were found in emotional intelligence levels, the results highlight the importance of emotional competencies in promoting self-awareness, emotional regulation, and positive social interactions among students. These findings have important practical implications for the educational system, suggesting the need to integrate emotional intelligence training programs, socio-emotional learning activities, and psychological support services within school curricula to help reduce aggressive behavior and improve students' behavioral and emotional adjustment. Furthermore, given the limited research on emotional intelligence and aggression within Algerian educational contexts, future studies should expand this line of research across different regions, school levels, and cultural settings to better understand how sociocultural factors influence emotional and behavioral development among adolescents. Continued research in diverse cultural contexts, particularly in Algeria, is necessary to support evidence-based educational and psychological interventions.

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