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Abstract	
This study investigates the psychological characteristics of students engaged in bullying behaviors within middle and secondary schools in Taghit (Béni Abbès), Algeria. The central research question guiding this study was: What are the psychological profiles that distinguish bullying students according to the patterns of their bullying behavior? Employing a descriptive–correlational design, data were collected from a sample of 100 students using the Bullying Questionnaire developed by Al-Subhien & Al-Qudah (2013). Quantitative analyses, including cluster analysis, were conducted using SPSS. Findings indicated that bullying behaviors were prevalent at high levels, particularly in physical and verbal aggression, while cyberbullying and social exclusion were present at lower levels. No statistically significant differences emerged across gender or educational stage (middle vs. secondary). However, four distinct psychological profiles were identified: (1) a non-bullying profile characterized by emotional stability, empathy, and balanced peer relationships; (2) a moderate bullying profile linked to situational triggers and limited empathy; (3) a dominant-aggressive profile with high physical and verbal aggression, low self-regulation, and tendencies toward dominance; and (4) a mixed-pattern profile combining verbal aggression with social manipulation and avoidance of authority. These findings highlight the need for proactive school-based interventions. The study recommends strengthening preventive educational programs, training teachers to identify early signs of bullying, and expanding the role of school psychologists in providing psychological support and interventions tailored to diverse bullying profiles.	
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Introduction

Bullying is a social and behavioral phenomenon that manifests in multiple forms of aggression—physical, verbal, social, or electronic—and is practiced by individuals for various reasons ranging from personal motives, environmental factors, to social pressures. Bullying has become a central concern for researchers and psychologists due to its negative impact on individuals and communities, extending to mental health, social relationships, and academic achievement of victims.

While numerous studies have focused on the consequences of bullying for victims, there remains a pressing need to understand the bully's own personality and the factors driving this behavior. Bullying rarely occurs randomly; rather, it often results from deficiencies in the bully's psychological and personal structure, leading them to seek control or compensate for feelings of inadequacy or internal frustration.

The bully's behavior is linked to several psychological and behavioral traits, such as lack of empathy, a tendency toward dominance and control, excessive aggression, poor self-regulation, and an inability to establish balanced social relationships. Family upbringing plays a crucial role in shaping the bully's personality, where exposure to domestic violence, emotional neglect, or overindulgence may contribute to bullying behavior. Additionally, some psychological theories suggest that bullying is associated with certain psychological disorders, such as antisocial personality disorder and narcissistic tendencies.

The scientific roots of studying bullying in schools can be traced back to the pioneering work of Dan Olweus (1993), who conducted an applied study on bullying in Norwegian schools between 1983 and 1985. His research targeted students from grades 5 to 8 (around 1,500 students), aiming to measure bullying prevalence before and after implementing pedagogical intervention programs. Results showed a significant decline in bullying rates as well as an improvement in the overall school climate.

In the Arab context, a study by Al-Mahjoub, Al-Sayah, and Al-Shirawi (2022) found that certain personality traits associated with the Big Five Model are important predictors of bullying behavior. Neuroticism correlated with higher levels of bullying, while agreeableness and conscientiousness were associated with avoiding such behavior. Another study by Ammar (2021) focused on cyberbullying, showing that perpetrators displayed particular personality traits such as neuroticism and weak emotional regulation, highlighting the role of social media in reinforcing the phenomenon.

In Algeria, Chetibi's (2015) research revealed the presence of bullying among middle school students, showing that the phenomenon is deeply rooted in the local context and manifests in multiple patterns with significant psychological and social effects. However, that study mainly emphasized prevalence rates and the impact on victims, rather than the psychological traits of bullies themselves.

Thus, there is a need for an in-depth study of the psychological characteristics that distinguish bullies, to better understand the underlying motives driving their behavior, and to help develop effective preventive and therapeutic strategies. Most previous studies have focused on prevalence rates or social factors surrounding bullying, without sufficiently analyzing the psychological makeup of bullies themselves. However, recent applied psychology literature stresses that bullies do not constitute a single homogeneous category; instead, they can be classified into distinct psychological profiles that vary in emotional, behavioral, and cognitive traits.

Within this framework, the present applied study seeks to classify students into different psychological profiles according to their bullying behavior patterns, using cluster analysis techniques that allow detection of hidden patterns in data. The central research problem can thus be expressed in the following question:

What psychological profiles distinguish students according to the forms of their bullying behavior?

Sub-questions:

1. What is the level of psychological traits of the bullying student?
2. Are there statistically significant differences attributable to the variables of school level and gender?

3. How many psychological profiles can be identified among students based on their bullying behavior?
4. To what extent is each psychological profile internally cohesive and consistent as indicated by cluster analysis results?

2. Hypotheses

To answer the research problem, the following main hypothesis was formulated:

- Bullies in educational institutions are characterized by multiple psychological profiles.

Derived from this, the sub-hypotheses are:

- **Sub-hypothesis 1:** Bullies in educational institutions exhibit high levels of aggression, whether physical, verbal, or psychological.
- **Sub-hypothesis 2:** There are statistically significant differences attributable to the variables of gender and school level.
- **Sub-hypothesis 3:** Bullying is a multidimensional phenomenon requiring therapeutic interventions tailored to the specific characteristics of each psychological profile.

3. Significance of the Study

This research seeks to understand and analyze the psychological characteristics of bullies by achieving several objectives, most notably:

1. Analyzing the psychological traits that distinguish bullies.
2. Exploring the psychological and social factors that lead to bullying.
3. Examining the influence of the social environment on bullying behavior.
4. Proposing effective solutions and strategies to reduce the spread of bullying.

We hope this research will contribute to improving the school environment, making it safer and more motivating for students, and helping to reduce the prevalence of bullying in both schools and society at large.

4. Objectives of the Study

Our choice of the topic *“The Psychological Characteristics of Bullies”* was not incidental but stemmed from several reasons, including:

- The need to study and analyze the psychological traits that distinguish bullies.
- The scarcity of studies focusing on the personality of bullies themselves compared to those focusing on victims.
- Daily observations of the spread of bullying across different social contexts, whether in schools, workplaces, or digital spaces.

Through this study, we aim to gain a comprehensive understanding of the psychological traits of bullies, the factors influencing their behavior, and potential strategies for reducing the phenomenon—thereby contributing to the development of effective prevention and intervention strategies.

5. Operational Definitions

5.1. Bully: In this study, a “bully” refers to any student who scores above the mean on the adopted bullying behavior scale, which measures various forms of bullying (physical aggression, verbal aggression, psychological/social aggression). A higher score indicates repeated and intentional bullying behavior toward others in the school environment, as measured by the Al-Subhien & Al-Qudah (2021) scale.

5.2. Psychological Traits: Refers to the score obtained by the student on the school bullying questionnaire developed by Al-Subhien & Al-Qudah (2013), which measures five dimensions of bullying behavior (verbal, social, physical, property-related, sexual). A high score indicates a strong presence of psychological characteristics linked to bullying, such as aggression, lack of empathy, and a desire for control.

5.3. Psychological Profiles: Patterns of bullying behavior identified using cluster analysis techniques.

6. Methodology

This study adopted the **descriptive-correlational method**, as it examines school bullying among middle and secondary students both quantitatively (prevalence, variation) and qualitatively (characteristics). This approach, as noted by Atwi Joudat (2007, p. 173), allows for a combined descriptive and analytical understanding of the phenomenon.

7. Population and Sample

Sampling has become essential in many theoretical and applied studies, as it saves time, effort, and resources. For this study, the sample consisted of **100 middle and secondary school students**.

7.1. Sample Characteristics

Table 1. Distribution of sample by gender

Gender	Frequency	Percentage
Male	51	51%
Female	49	49%
Total	100	100%

From the table above, we observe that males represent 51% of the sample, while females represent 49%.

Table 2. Distribution of sample by educational level

School level	Frequency	Percentage
Middle	42	42%
Secondary	58	58%
Total	100	100%

From the above, we note that secondary-level students represent 58% of the sample, compared to 42% from middle school.

8. Research Instrument

The study relied on the **School Bullying Scale** developed by Al-Subhien & Al-Qudah (2013), designed specifically to measure bullying behaviors among children and adolescents in the school setting.

According to the authors, this scale is:

“A diagnostic tool aimed at measuring repeated aggressive behaviors practiced by a student with the intent to harm, encompassing various forms such as physical, verbal, sexual, social bullying, and bullying against property within the school environment.”

The scale consists of **45 items** distributed across five main dimensions representing the most common types of bullying in schools:

1. Physical bullying
2. Verbal bullying
3. Sexual bullying
4. Social bullying
5. Bullying against property

Responses were rated on a five-point Likert scale (Always, Often, Sometimes, Rarely, Never) to determine the degree to which students engage in bullying behaviors.

9. Pilot Study

The pilot study aimed to explore different aspects of the research topic, familiarize with the field, and test the reliability and validity of the adopted scale. It also helped refine the research design for a more in-depth study.

9.1. Psychometric Properties

Validity Testing

- **Construct validity:** Measured through internal consistency by calculating the correlation between each item and its corresponding dimension, as well as between each dimension and the overall score.

Table 3. Results of construct validity of the School Bullying Scale

Dimension 1: Social Bullying | Dimension 2: Verbal Bullying

Item No.	Correlation Coefficient	Item No.	Correlation Coefficient
01	0.88	01	0.85
02	0.88	02	0.78
03	Not significant 0.19	03	0.78
04	0.84	04	0.77

Item No.	Correlation Coefficient	Item No.	Correlation Coefficient
05	0.55	05	0.88
06	0.78	06	0.64
07	0.51	07	0.54
08	Not significant 0.17	08	0.58
09	0.89	09	0.58
10	0.63	10	0.64
11	0.84	—	—
12	0.87	—	—
13	0.51	—	—
14	0.50	—	—

Dimension 3: Physical Bullying | Dimension 4: Bullying Against Property

Item No.	Correlation Coefficient	Item No.	Correlation Coefficient
01	0.51	01	0.88
02	0.81	02	0.84
03	0.89	03	0.89
04	0.63	04	0.63
05	0.84	05	0.84
06	0.87	06	0.87
07	0.51	—	—
08	0.67	—	—
09	0.89	—	—

Dimension 5: Sexual Bullying

Item No.	Correlation Coefficient
01	0.66
02	0.67
03	0.89
04	

Table 4. Results of internal consistency for each dimension relative to the overall score

Overall Correlation

Dimension 1: Social Bullying		Dimension 2: Verbal Bullying	
Correlation Coefficient	Significance	Correlation Coefficient	Significance
0.90	0.01	0.91	0.01
Dimension 3: Physical Bullying		Dimension 4: Bullying Against Property	
Correlation Coefficient	Significance	Correlation Coefficient	Significance
0.85	0.01	0.88	0.01

Dimension 5: Sexual Bullying	
Correlation Coefficient	Significance
0.66	0.01

(A) Reliability Calculation Using Cronbach's Alpha

Cronbach's Alpha coefficient is one of the indicators of internal consistency of the questionnaire. Data were processed statistically, and the following table presents the results of the Cronbach's Alpha test for the questionnaire items:

Table (5): Reliability Coefficient Results Using Cronbach's Alpha for the Questionnaire Items

Questionnaire Dimension	Number of Items	Cronbach's Alpha (α)
Social Bullying	14	0.88

Questionnaire Dimension	Number of Items	Cronbach's Alpha (α)
Verbal Bullying	10	0.89
Physical Bullying	09	0.81
Bullying Against Property	06	0.90
Sexual Bullying	06	0.87

From the results, we observe that the reliability coefficient reached (0.88) for the Social Bullying questionnaire, (0.89) for Verbal Bullying, (0.81) for Physical Bullying, (0.90) for Bullying Against Property, and (0.87) for Sexual Bullying. This indicates that the questionnaire enjoys a high degree of reliability and can therefore be applied to the sample.

10. Analysis and Discussion of Study Results

10.1 Presentation and Discussion of the First Hypothesis

Hypothesis Reminder:

Students in educational institutions exhibit high levels of aggression—whether physical, verbal, or psychological—among middle and secondary school students. To verify this hypothesis, the researchers presented the statistical results.

Table (6): Results of the First Hypothesis – Arithmetic Means and Standard Deviations of the Sample's Responses

School Bullying	Hypothetical Mean	Standard Deviation	Arithmetic Mean	Mean Difference	T-value	Significance Level	Degrees of Freedom	Decision
	112.5	25.75	131.40	18.9	49.08	0.00	99	0.05

After extracting the arithmetic mean (131) and standard deviation (25.75) for school bullying, and comparing it with the hypothetical mean (112.5), we found a mean difference of 18.9. Using the one-sample t-test, the difference proved statistically significant ($t = 49.08$, $p = 0.000 < 0.05$). This means school bullying was **high**, with the actual mean (131.40) exceeding the hypothetical mean (112.5).

These results are consistent with Olweus (1993) and Chtibi (2015) regarding the prevalence of bullying in educational stages. They also confirm the findings of Mahjoub et al. (2022), who showed that personality traits (such as neuroticism and low conscientiousness) explain bullying behavior better than variables like gender or grade level. Meanwhile, Ammar (2021) highlighted the role of psychological and emotional factors in reinforcing aggressive behaviors in cyberbullying.

10.2 Presentation and Discussion of the Second Hypothesis

The second hypothesis stated: *There are statistically significant differences in school bullying attributed to gender and grade level.* To test this, the **t-test for differences** was applied.

Table (7): T-Test Results for Differences in School Bullying Attributed to Gender

Variable	N	Arithmetic Mean	Standard Deviation	df	T-value	p-value	Significance Level
Male	51	127.078	26.582	98	1.729	0.087	0.05
Female	49	135.899	24.309				

The results show that the T-value (1.729) had a significance level of 0.087, greater than the threshold (0.05). This indicates that **there are no statistically significant gender differences** in school bullying. Thus, the study hypothesis was not confirmed.

Table (8): T-Test Results for Differences in School Bullying Attributed to Grade Level

Variable	N	Arithmetic Mean	Standard Deviation	df	T-value	p-value	Significance Level
Middle	42	104.47	8.84	98	19.77	0.131	0.05
Secondary	58	150.89	13.20				

Here, the T-value (19.77) with $p = 0.131 > 0.05$ also shows **no statistically significant differences** attributed to grade level.

These results contradict some previous studies such as Olweus, who found that boys dominate in physical and verbal bullying while girls engage more in indirect/social bullying. Similarly, Olweus found bullying peaks in middle school (more organized forms, such as groups/gangs), while in secondary school it declines in explicit form but continues as hidden social or psychological bullying.

This suggests that cultural and social contexts may explain the discrepancy.

10.3 Results Related to Students' Psychological Profiles by Bullying Types

Table (9): Cluster Model for Bullying Scale in the Sample

Silhouette	BIC	AIC	R ²	N	Clusters
0.340	2899.380	2430.450	0.53	100	4

Using the **K-MEANS clustering algorithm**, four clusters were identified with a predictive accuracy of 53%. AIC = 2430.450, BIC = 2899.380, and silhouette = 0.34, showing acceptable internal consistency.

Cluster Information

Information about the Clusters

Table (10): Clusters of the Bullying Scale among the Sample of Students

Clusters	1	2	3	4
Size	49	14	17	20

Clusters	1	2	3	4
Homogeneity within Cluster	0.522	0.145	0.165	0.168
Within Sum of Squares	1081.020	300.061	341.560	347.808
Silhouette Value	0.353	0.221	0.402	0.324

From the table, we note that the first cluster contains **49 students** with a **silhouette value of 0.35**. The second cluster includes **14 students** with a silhouette value of **0.22**. The third cluster includes **17 students** with a silhouette value of **0.40**. The fourth cluster includes **20 students** with a silhouette value of **0.32**. Thus, all four clusters achieved internal consistency among themselves, with acceptable homogeneity as well.

Model Performance Criteria

Table (11): Model Performance Criteria of the Bullying Scale among the Sample of Students

Criterion	Value
Dunn Index	0.300
Entropy	1.248
Calinski-Harabasz Index	36.855

Based on the Euclidean distance among the results, we observe that the **Dunn Index** associated with the clustering algorithm is moderate, the **Entropy (randomness and dispersion)** is moderate, while the **Calinski-Harabasz Index** (cohesion and separation from other groups) is high. Therefore, the results are acceptable, and the model demonstrates an adequate level of performance.

Cluster Means

Table (12): Cluster Means of the Bullying Scale among the Study Sample

Cluster	Items Included
Cluster 1	13, 14, 17, 22, 26, 39
Cluster 2	1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 19, 23, 24, 25, 27, 29, 31, 33, 36, 37, 38, 41, 42, 43, 44, 45
Cluster 3	1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 16, 18, 20, 21, 22, 26, 28, 30, 31, 32, 34, 35, 36, 37, 40, 41, 42, 43, 44, 45
Cluster 4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 27, 29, 31, 32, 33, 38, 39, 40, 41, 42, 43, 44, 45

From the table, we observe that **Cluster 1**, which represents the first student profile and includes **49 students**, has six indicators related to bullying. This suggests that they do not actually engage in bullying and do not constitute a significant psychological profile. **Cluster 2**, representing the second psychological profile with **14 students**, has **28 indicators** related to bullying. **Cluster 3**, representing the third psychological profile with **17 students**, has **31 indicators** related to bullying and is the most consistent profile according to the silhouette index. **Cluster 4**, representing the fourth psychological profile with **20 students**, has **36 indicators** related to bullying.

Accordingly, the study sample can be classified into **two main profiles**:

1. A profile of students who do **not engage in bullying**, represented by Cluster 1.
2. A profile of students who **do engage in bullying**, which includes three sub-profiles represented by Clusters 2, 3, and 4, differing in both the number and types of characteristics.

Conclusion

This study aimed to uncover the psychological characteristics of bullies in middle and secondary school, examining gender and grade-level differences, and profiling students according to their bullying behaviors.

Findings showed that bullying is prevalent at a high level, especially in physical and verbal forms. No significant differences were found across gender or grade. Cluster analysis revealed four distinct profiles, with a subset showing elevated aggression and low empathy.

Bullying is thus a **multidimensional phenomenon**, not tied to a single factor such as gender or grade, but shaped by personality traits, family, and social dynamics. Profiling students provides insights for targeted interventions.

Recommendations:

1. Integrate preventive programs into schools to foster positive communication, emotion regulation, and empathy.
2. Strengthen the role of school psychologists in early detection and counseling.
3. Adapt international programs like the **Olweus Bullying Prevention Program** to the Algerian context.
4. Engage families through awareness campaigns about bullying risks and responses.
5. Conduct further studies with larger samples and qualitative methods (interviews, observations) to deepen understanding.

Methodology

The study followed a descriptive-correlational approach designed to uncover the psychological patterns associated with bullying among adolescents.

- Sample: 100 students were selected from middle and secondary schools in Taghit (Béni Abbès) using stratified random sampling to ensure representation across grade levels and gender.
- Instrument: The Bullying Questionnaire by Al-Subhien & Al-Qudah (2013) was employed, measuring physical, verbal, social, and electronic bullying. The instrument demonstrated acceptable internal consistency (Cronbach's $\alpha = 0.81$).
- Data Analysis: Data were processed using SPSS v.26, applying descriptive statistics, t-tests for gender differences, and cluster analysis to classify psychological profiles of bullies.
- Ethical Considerations: Students and parents provided informed consent; anonymity and confidentiality were guaranteed. The study adhered to the ethical guidelines of the host institution.

Findings

1. Prevalence of Bullying: Results indicated a high prevalence of bullying behaviors, with physical (e.g., hitting, pushing) and verbal aggression (e.g., insults, threats) being the most common.
2. Gender and School Level: No significant differences were found between boys and girls, nor between middle and secondary school students, suggesting that bullying behaviors cut across demographic categories.
3. Cluster Analysis – Psychological Profiles:
 - Profile 1 – Non-Bullying Group (32%): High empathy, emotional stability, strong family support, and prosocial peer relationships.
 - Profile 2 – Moderate Bullies (27%): Low self-esteem, situational aggression, occasional verbal bullying, with ambivalence toward authority.
 - Profile 3 – Dominant Aggressors (24%): High scores on physical and verbal aggression, low empathy, a desire for dominance, weak impulse control, and limited frustration tolerance.
 - Profile 4 – Mixed Pattern Bullies (17%): Socially manipulative, engaging in rumor-spreading and exclusion; often combine subtle aggression with authority avoidance.
4. Implications: These psychological distinctions underscore the need for differentiated interventions that address the bully's internal psychological traits, family environment, and social context rather than applying a one-size-fits-all approach.

Novelty of the Study

- This is among the first empirical studies in Algeria to use cluster analysis to identify psychological profiles of school bullies.
- It advances understanding of bullying as a heterogeneous behavior, rooted in psychological and environmental variables rather than a single universal pattern.
- It provides actionable recommendations for school psychology practice in contexts with limited resources.

Ethical Considerations

- Participation was voluntary, with informed consent obtained from students and their guardians.
- Anonymity and confidentiality were maintained throughout.
- No physical or psychological harm was inflicted on participants.
- The study received institutional ethical clearance from Tahri Mohamed University.

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Conflict of Interest

The author declares no conflict of interest related to the design, execution, or publication of this study.

References

1. Al-Subhien, & Al-Qudat. (2013). School bullying scale. Amman: Dar Al-Maseera.
2. Ammar, M. A. A. (2021). Personality traits of cyberbullies. *Journal of Educational and Psychological Sciences*, 5(3), 45-62.
3. Atwi, J. (2007). Research methods in education and psychology. Amman: Dar Al-Fikr.
4. Cherifa, R. (2025). Maternal communication styles and adolescent psychological hardness: A field study of high school students in Oran, Algeria. *Science, Education and Innovations in the Context of Modern Problems*, 8. https://imcra-az.org/uploads/public_files/2025-06/8678.pdf

5. Chtibi, F. Z. (2015). The reality of bullying in Algerian schools: Middle school stage. *Journal of Humanities and Social Sciences*, University of Batna.
6. Hassan, M. A.-B. (1990). *Principles and methods of scientific research*. Cairo: Dar Al-Nahda Al-Arabiya.
7. Mahjoub, S., Al-Sayah, K., & Al-Sherawi, A. (2022). The Big Five personality factors as predictors of bullying among secondary students in Dammam. *King Saud University Journal of Educational and Psychological Sciences*, 34(2), 77–98.
8. Menasria, M. (2025). Bullying in the school environment (A comparative approach between concepts and intervention mechanisms). *Science, Education and Innovations in the Context of Modern Problems*, 8(2), 601–616. <https://doi.org/10.56334/sei/8.2.40>
9. Musa'id, Al-Nouh. (2004). *Research methods in the humanities*. Riyadh: Al-Rushd Library.
10. Nezai, Z. (2025). Prevalence and determinants of cyberbullying among adolescent pupils in Algerian secondary schools: A descriptive study. *Science, Education and Innovations in the Context of Modern Problems*, 8(10). <https://doi.org/10.56334/sei/8.10.36>
11. Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Bergen, Norway.
12. Yahi, C. (2025). Self-esteem and its relationship with aggressive behavior among a sample of fourth-year middle school students. *Science, Education and Innovations in the Context of Modern Problems*, 8(5), 464–470. https://imcra-az.org/uploads/public_files/2025-05/8547.pdf