

## **AGGRESSIVENESS IN 13 – 14-YEAR-OLD STUDENTS – BIOLOGICAL, CULTURAL AND EDUCATIONAL ASPECTS**

**Rositsa Dimkova**

*St. St. Cyril and Methodius University of Veliko Tarnovo (Bulgaria)*

**Abstract.** Aggression among 13 – 14-year-old students is a complex phenomenon shaped by biological predispositions, cultural norms, and educational environments. Through this study, we will analyze the multifactorial nature of aggressive behavior in early adolescence, which is based on psychological, sociological, and pedagogical frameworks. The article elucidates the biological, cultural, and educational factors influencing aggression in 13 – 14-year-old students, with a focus on gender differences. In this article, we examine hormonal and neurological influences, the role of school and parents, the influence of school climate, and teacher – student relationships. Understanding these factors is crucial for developing effective educational interventions. Adolescence is a critical period characterized by significant emotional and behavioral changes. It is a complex and turbulent stage characterized by rapid emotional, social, and cognitive development. Among the behavioral changes observed during this period, aggression – both physical and verbal – tends to increase, especially around the age of 13. Understanding how these behaviors manifest differently in students is crucial for educators, parents, and psychologists who strive to create a supportive school environment. Our goal is to study the opinions of 13 – 14-year-old girls and boys about the factors shaping aggressive behavior, as well as antisocial behavior in secondary school, and to establish the level of types of aggression. To achieve the goal, it is necessary to scientifically explain the causes of antisocial behavior in the considered age group, identifying the most common manifestations of aggression. The methodology used includes the survey method. Aggression in early adolescence should not be viewed as a character flaw, but rather as a developmental signal – a flashing light that something needs support or attention.

*Keywords:* aggressiveness; biological, cultural and pedagogical science; educational perspectives

## **Introduction**

At the modern stage of development of society and social practice, there is a tendency of change in the behavior of adolescents towards aggression and asocial behavior. Various factors are rooted in this negative trend – historically determined, by the social environment and by the human psyche. Aggressive and asocial manifestations among adolescents are related to living conditions that give rise to conflicts in the social environment. In a crisis of values, children who grew up surrounded by violence and in negative living conditions would naturally react to problems with aggression. According to R. Beron and D. Richardson, aggression has an instinctive nature. It is an innate and inalienable quality of higher beings, which guarantees the struggle for existence and survival (Beron and Richardson, 1994).

Adolescent aggression occurs in both boys and girls, but the forms, causes, and means of expression often differ. There is no separate term for the “period of aggression” in girls, but psychology and pedagogy consider different types of aggression that are more characteristic of each gender group. For boys: Physical aggression is more often observed – fights, threats, direct confrontation. It is related to the need for dominance, social status, hormonal changes (testosterone). For girls: Relational or indirect aggression is more often manifested – exclusion from groups, spreading rumors, emotional pressure. It is related to the need for social belonging, self-esteem, competition among peers.

Aggressiveness in early adolescents typically stems from multiple sources: hormonal changes, environmental stressors, peer pressure, and evolving identity. Psychologists often classify it into two broad types: Reactive aggression, which occurs as a response to perceived threats or provocation. Proactive aggression, which is deliberate and goal-oriented. Although both genders can exhibit either form, the expression and triggers of aggression may differ significantly between boys and girls.

## ***Gender Differences in Adolescent Aggression***

Research has long suggested that male adolescents are more prone to physical aggression, such as fighting or bullying, while female adolescents more commonly display relational aggression, including social exclusion, gossiping, and manipulation. However, recent studies indicate that these patterns are becoming less rigid, with overlapping behaviors increasingly common (Li et al., 2021).

## ***Biological detail behind aggression in adolescents and Neurological Factors***

*Hormonal Changes:* Increased levels of testosterone in boys and estrogen in girls during puberty can lead to heightened aggression (Archer, 2006). Moreover, brain development in adolescents, especially in the prefrontal cortex and amygdala, influences risk-taking and emotional reactions.

During early adolescence, the human brain undergoes significant restructuring, particularly in areas responsible for emotional regulation, impulse control, and decision-making.

### ***Key Biological Factors***

**Brain Development** – The prefrontal cortex, responsible for impulse control, is still developing during adolescence, which can contribute to aggressive behavior (Siegler et al., 2014). This underdevelopment contributes to impulsive and emotionally charged behavior, especially in stressful situations and impulse control, is still maturing during ages 13 – 14. The amygdala, responsible for processing emotions like fear and anger, becomes highly reactive in adolescence. Teens may respond more strongly to perceived threats or insults.

**Hormonal Changes** – **Testosterone**: Levels in boys increase rapidly during puberty, often linked to increased physical aggression, risk-taking, and dominance-seeking behavior. **Estrogen and Progesterone**: These hormonal shifts in girls can contribute to mood swings, irritability, and relational aggression. Both boys and girls also experience a surge in dopamine, affecting their reward systems. This can lead to seeking out thrilling or confrontational experiences. Increased levels of testosterone in boys and estrogen in girls during puberty can lead to heightened aggression (Archer, 2006).

**Neurochemical Sensitivity** – Adolescents are especially sensitive to social rejection, which activates the same brain areas as physical pain. As a result, social slights may provoke a strong emotional or aggressive response.

### ***Environmental and Cultural Influences – Cultural Context and Social Influences***

Culture plays a pivotal role in shaping how aggression is expressed and perceived in adolescents. Norms around gender, authority, discipline, and emotional expression differ across societies. **Gender Socialization**: Cultural norms often dictate that boys express aggression physically, while girls may exhibit relational aggression (Archer, 2004).

**Cultural Contexts**: In individualistic cultures, aggressive behavior may be more accepted, whereas collectivist cultures may discourage such behaviors to maintain social harmony (Li et al., 2021).

One of the most notable results is the improvement in executive functions, including memory, attention, and decision-making skills. Children who participate in daily physical activity tend to perform better on tasks requiring mental focus, problem-solving, and creativity.

Additionally, physical education fosters resilience. Whether it's learning to cope with a loss in a game or pushing through physical challenges, children develop a mental toughness that extends far beyond the gymnasium1).

### ***Methodology***

The purpose of the study is of 13 – 14-year-old girls and boys about the factors that most often form aggressive and asocial behavior and to establish the level of types of aggression.

### **Tasks to achieve the goal**

1. To scientifically explain the causes of asocial manifestations in the considered age group, identifying the most common manifestations of violence.
2. To study the opinion of 13 – 14-year-old girls and boys about the factors that form aggressive behavior, as well as asocial manifestations in secondary school.
3. To study the forms of aggressive behavior at school.

### **Organization**

The methodology used includes the survey method and statistical analysis. The survey was conducted with 80 students aged 13 – 14 (35 girls 45 boys) from the “Emiliyan Stanev” Secondary School in the city of Veliko Tarnovo. The surveyed individuals answered the questionnaire on which the survey was conducted anonymously.

Brief structure of the questionnaire consisting of 13 questions:

“In your opinion, what are the most significant reasons that would provoke aggressive behavior?”; “How do you explain violence?”; “Do violence and antisocial behavior exist at school?”; “What forms of violence in and outside of school do you most often encounter?”; “Why, despite the facts, is this not a sufficient argument to solve the problems that occur in the schoolyard?”; “Who is responsible for the lack of control and moral decline among the younger generation – parents, teachers, responsible institutions, society?”; “Do you have aggressive classmates?”; “Do you think that manifestations of aggression and asocial behavior among adolescents are a consequence of what the media, computer games and the Internet show?”; “Do you think that 13 – 14 year old girls and boys copy the aggressive and asocial behavior of peers, relatives and people around them with identical behavior?”; “In your opinion, do antisocial behavior and asocial behavior in adolescents reflect the low level of moral values in society?”; “What is your opinion about the level of aggressive and asocial behavior among adolescents today?”; “Do teachers apply means and approaches to reduce the level of aggressive behavior at school?”; “In your opinion, what will contribute most significantly to reducing the level of aggressive manifestations and asocial behavior?”. All these questions were included in the survey!

### **Main aspects of aggression in students**

#### *Types of aggression:*

- Physical – hitting, pushing, fighting;
- Verbal – insults, threats, mockery;
- Psychological – isolation, manipulation, harassment;
- Cyberbullying – online insults, sharing compromising materials.

#### *Causes of aggressive behavior:*

- Family environment – violence at home, lack of parental control;
- Social factors – group pressure, desire for dominance;

- Emotional problems – low self-esteem, anxiety, depression;
- School environment – lack of clear rules, ineffective discipline.

*Data and observations*

In Bulgaria, 80% of students have been victims of aggression at school. Research shows high levels of aggression and hostility among adolescents, especially in the 13 – 18 age range.

The Busey-Durkey method is used to measure aggression and hostility.

*Helpful coping strategies*

- Working with a pedagogical advisor;
- Working with a school psychologist;
- Collaboration with parents – clear communication, shared rules;
- Prevention through education – developing emotional intelligence, social skills;
- Clear rules and consistency at school – creating a safe environment.

**The role of schools and parents**

Educators are on the front lines of adolescent aggression. School policies, counseling services, and classroom management strategies all shape how aggression is expressed and managed. Programs focusing on emotional regulation, empathy training, and conflict resolution can significantly reduce aggression levels.

The role of the teacher in these activities shifts from the traditional “instructor” to that of a facilitator, guiding students through discussions, problem-solving, and conflict resolution within group dynamics (Putra, Waruwu, Asbari, Novitasari, & Purwanto, 2020).

Parents, too, must model healthy conflict resolution at home. Open communication, consistent boundaries, and emotional support all help adolescents channel their feelings more.

Family and community norms: In some cultural settings, expressing anger is discouraged, especially for girls, which may push their aggression into covert or internalized forms. Conversely, in some environments marked by chronic stress or exposure to violence, both boys and girls may adopt aggressive behaviors as a survival mechanism.

Classroom strategies to manage and reduce aggression: Teachers and school administrators play a crucial role in shaping adolescent behavior. Instead of relying solely on punishment, effective strategies emphasize empathy, emotional literacy, and structured boundaries.

Social-emotional learning programs: these teach students how to manage impulses, show empathy, and resolve conflicts peacefully. Programs like “Second step or PATHS” have shown measurable reductions in school aggression (Durlak et al., 2011).

Social-emotional learning: programs that teach students to recognize and manage emotions can reduce aggressive behavior (Durlak et al., 2011).

Restorative justice practices: rather than punishing the student, this approach brings together those involved in a conflict to discuss harm caused and agree on steps to repair it (Zehr, 2002).

Restorative practices: approaches that focus on repairing harm and restoring relationships can be effective in addressing aggression (Zehr, 2002).

### **How the virtual environment affects aggression**

The virtual environment can be a significant factor in aggression among students, especially when it comes to online communication, social networks and digital games. It creates conditions of anonymity, lack of control and often a lack of emotional feedback, which can reinforce aggressive behavior. The virtual environment includes all digital spaces in which students interact – social networks – Facebook, Instagram, TikTok, chats, forums, online games, video platforms and educational platforms. It is part of students' everyday lives and often replaces real communication<sup>2</sup>.

Cyberbullying: Anonymity and distance allow students to insult, threaten, or humiliate others without direct consequences.

Reduced empathy: The lack of visual and emotional contact leads to a weakening of empathy – students do not see the victim's reaction.

Violence in games and videos: Frequent exposure to aggressive content can normalize violence and make it acceptable behavior.

Comparison and social pressure: On social networks, students often compare themselves, which can lead to frustration, envy, and aggressive reactions.

Lack of parental control: Many students spend time online without supervision, which increases the risk of engaging in aggressive online practices.

What can be done<sup>2</sup>:

Digital literacy and ethics education;

Introducing policies for safe online behavior in school;

Parental control and dialogue at home.

### **Responsibility and empathy are encouraged and clear and consistent boundaries are set**

Adolescents need consistent structure: Having clear rules with transparent consequences, combined with positive reinforcement for good behavior, helps reduce power struggles.

Positive role modeling: Teachers who demonstrate calm, respectful conflict resolution can influence how students handle their own interpersonal issues. The internal component is the inner world of a person, the idea of his spiritual and intellectual development, interests, values, and his personality as a whole.

Safe spaces and counseling access: Having mental health resources available, such as school counselors or peer-support groups, allows students to express anger or frustration safely and constructively.

## Results

According to the survey, the reasons for aggressive behavior and asocial behavior among adolescents are different. As influencing factors, we can point out the following: social crisis, politics, economy, family, the environment in which we live, etc. family, school and society are dominant educational factors that need to be applied comprehensively.

**Table 1.** Results of the Buss-Durkey test for aggressiveness – boys and girls

|        | Aggression |     |     |     |     |     |     |     |        |
|--------|------------|-----|-----|-----|-----|-----|-----|-----|--------|
| Groups | PhA        | VA  | IA  | I   | N   | S   | R   | G   | Total  |
| Boys   | 61%        | 59% | 62% | 60% | 57% | 64% | 56% | 49% | 57,11% |
| Girls  | 59%        | 64% | 54% | 52% | 61% | 55% | 46% | 51% | 54,44% |

*Interpretation of the scale:* Physical aggression (PA), Verbal aggression (VA), Indirect aggression (IA), Irritability (I), Negativism (N), Suspiciousness (S), Resentment (R), Guilt (G).

Of interest are the results of the survey conducted with 13 – 14 year old students:

To the first question: “In your opinion, what are the most significant reasons that would provoke aggressive behavior?”, 52% point to the influence of the mass media and an inappropriate friendly environment, and 21% – rude and unpleasant behavior from others. Tension or lack of attention in the family is given importance by 19% of those surveyed, and alcohol and drugs – 8%. Half of those surveyed indicated the mass media and the circle of friends as the main reason, since they have a short-term impact on a person’s psyche. Only 19% are aware of the influence of a bad climate in the family, while a slightly higher number of adolescents would react aggressively as a defensive reaction due to rude and unpleasant treatment by people around them.

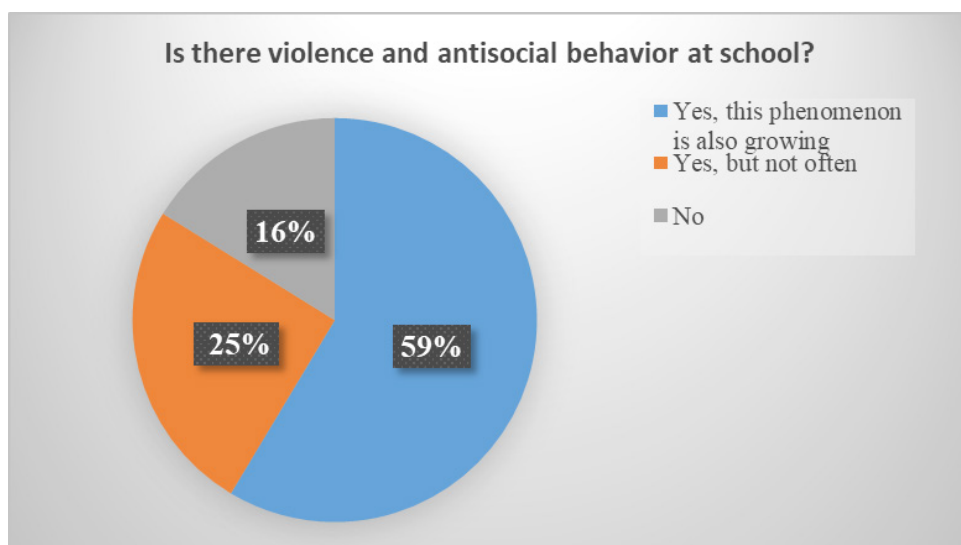
“How do you explain violence?” – here the answers are indicative and directly related to the previous question. 41% of those surveyed believe that violence is a form and expression caused by the defeat of complexes, and 34% – as a manifestation of physical force due to mental imbalance. We assume that the phenomenon of “violence” is determined by the influence of a bad friendly environment and violence reflected in the media and films. Achieving a leadership position is confirmed by 14%, which proves that violence is accepted as a tool for achieving power and self-affirmation. This is conditionally related to genetic predispositions – a natural instinct, which is also indicated as one of the reasons (11%).

“Do violence and antisocial behavior exist at school?” and “What forms of violence in and outside of school do you most often encounter?”. A significant part (59%) answered that violence and antisocial behavior are present, and a significant part (25%) claimed, they not so often. 16% have not noticed any irregular willfulness among their peers (Fig. 1). The most common form of aggression or violence is

verbal (mental) – 64%, followed by physical – 36%. Other forms of the mentioned manifestations were not noted.

School is the main environment for the manifestation of aggression, but outside of class. In second place is the street; in third place – in the classroom. This is expected, because students spend a large part of their time at school and among classmates.

But the questions arise: Why, despite the facts, is this not a sufficient argument to solve the problems that occur in the schoolyard and Who is responsible for the lack of control and moral decline among the younger generation – parents, teachers, responsible institutions, society?



**Figure 1.** Presence of violence and antisocial behavior at school

Again, we have evidence of the presence of aggression through the question “Do you have aggressive classmates?”. The respondents’ answers indicate with high percentages – 60, the presence of aggressive classmates, but few in number, and 18% – like most of them. A negative answer was given by 22%. For this part of adolescents, it can be assumed that there is a reason for not indicating the truth – fear, apathy towards what is happening around them, callousness.

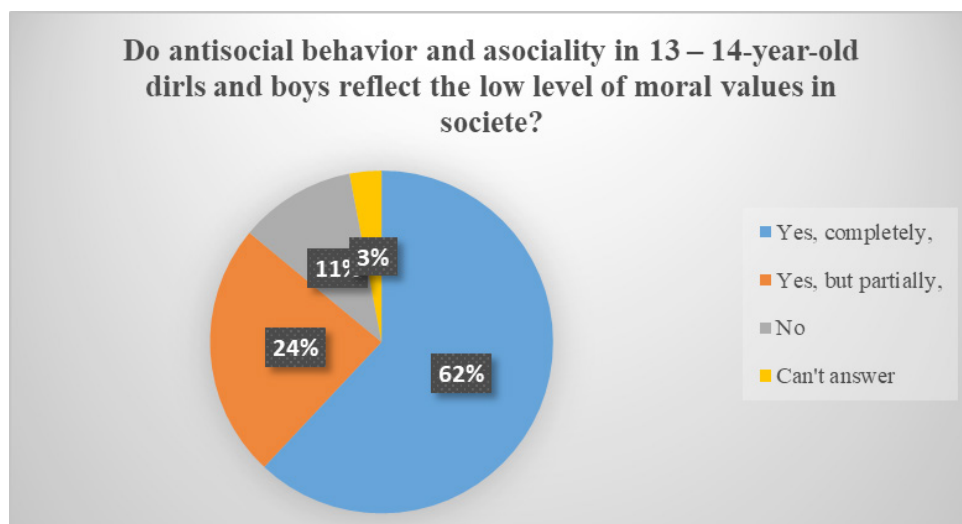
The results of the survey “Do you think that manifestations of aggression and asocial behavior among adolescents are a consequence of what the media, computer games and the Internet show?”, bring us information on the extent to which the younger generation is influenced by sitting in front of the TV and computer, and whether they realize this as a factor in perceiving aggression and asociality as a

model of behavior. In percentage terms, the answers – “yes, to a large extent” (30%), “partially yes” (37%) and “no, there are other factors” (33%) – are approximately the same. But a total of 67% express concern about the impact of the mentioned media as instigators of aggression and violence.

The results are not surprising. For students, they are the source of information and knowledge, which has already replaced books, art and sports as preferred leisure activities. Television and computers somewhat alienate adolescents from the family environment and peers, and are often a prerequisite for isolation and loneliness, which can provoke aggression or auto-aggression. A good option is to replace this with sports, dancing, practicing other types of art or playing outside with friends – the best model for communication. In addition to the family and school environment, friendship circles are again indicated as an environment for generating aggression and tension.

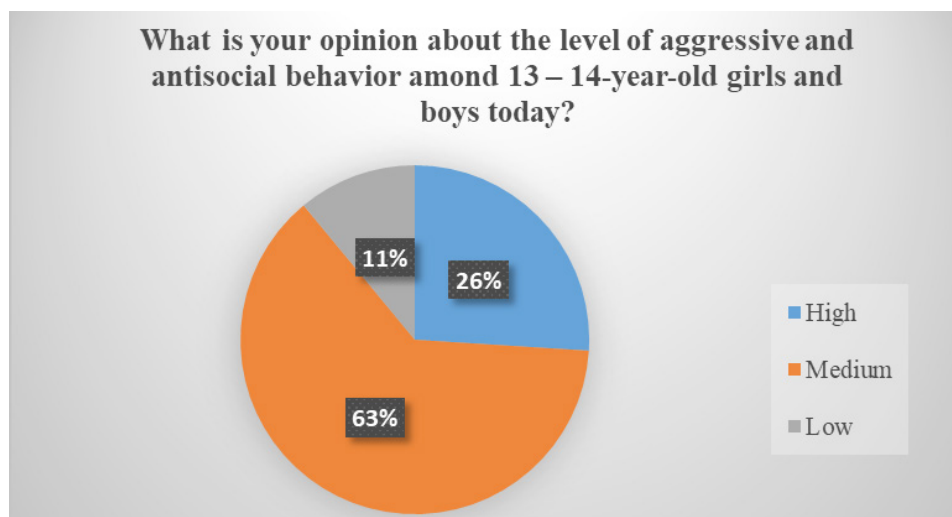
This is the opinion of 27% of adolescents who answered the question “Do you think that 13 – 14-year-old girls and boys copy the aggressive and asocial behavior of peers, relatives and people around them with identical behavior?”. 63% believe that this happens in rare cases, and 10% – a consequence of genetic predisposition. The friendly environment has an impact on the representatives of this age group (13 – 14 years), to which they belong. During this period, the character of the individual is formed and this factor can influence in a positive or negative aspect. In general, aggressive and asocial behavior is a sum of the above factors – friends, family, mass media and the environment. We should not accept the family in an absolute degree as a factor for the development of aggressive behavior and the formation of personality in adolescents, but only as a prerequisite acting in parallel with the other factors.

To the question “In your opinion, do antisocial behavior and asocial behavior in adolescents reflect the low level of moral values in society?”, 62% of respondents strongly believe that antisocial behavior and asocial behavior in adolescents reflect the low level of moral values in society, 24% say that this is so, but partially, and 11% answered “no” and 3% said they cannot answer (Fig. 2).



**Figure. 2.** Influence of society on asociality in adolescents

The level of aggressiveness is in the average range – this is what 63% think. The percentages for high and low levels of aggression are 26 and 11 respectively, according to the respondents “What is your opinion about the level of aggressive and asocial behavior among adolescents today?” (Fig. 3).



**Figure 3.** Level of aggressive and asocial behavior among adolescents

The percentage distribution of the importance of the teacher as a factor in limiting negative manifestations and behavior at school among students is interesting.

The students who answered the question “Do teachers apply means and approaches to reduce the level of aggressive behavior at school” believe that this does not depend on the teachers (45%), almost the same part answered “yes” (42%) and a small number of students – with “no” (13%).

The last question: “In your opinion, what will contribute most significantly to reducing the level of aggressive manifestations and asocial behavior?”, draws our attention to a factor, the lack of which also determines the increase in aggression and asocial behavior. The largest percentage of the surveyed adolescents (65%) point out that the presence of more cultural and sports events for students would have a positive impact to the highest degree. 22% attach importance to organizing specialized lectures for parents and students, 7% are in favor of introducing an evaluation system for behavior and 6% – other. Nowadays, there is a shortage of extracurricular activities – the absence of former youth organizations and associations with a patriotic focus and self-awareness, the closure of a large part of circle activities and centers for working with children. Also the small number of sports events and mass sports. The consequences are negative: informal youth groups with antisocial behavior, alcohol and drug use, a large part of the time spent in bars and discos, etc.

After the onset of democratic processes, greater requirements are placed on the development of the state and society, related to limiting the negative manifestations of adolescents, and with an increasingly urgent use of other methods, forms and means of influence, such as prevention. “Educational systems both in our country and around the world are in the midst of radical reform, related to the introduction of the educational system for all students, regardless of their social, cognitive or physical capacity. Ensuring that every person has equal opportunities for advancement in education remains a global challenge” (Marcheva-Yoshovska, 2025, p. 47).

## **Discussions**

### ***Suggestions for educational strategies***

For the prevention of aggression in school, we can comment on strategies such as social-emotional learning, school mediation programs, parental involvement and creating a positive school culture. It is important to include interdisciplinary approaches as well as support from psychologists and institutions

#### ***Educational strategies for the prevention of aggression:***

Social Emotional Learning (SEL): Develops skills such as empathy, self-regulation, conflict resolution. Includes lessons on emotional intelligence, group discussions and role plays. Social-Emotional Learning: Programs that teach students to recognize and manage emotions can reduce aggressive behavior.

**School Mediation Programs:** Students are trained to mediate and help with peer conflicts. It encourages dialogue, not punishment.

**Classroom sessions with a focus on values and ethics:** Topics such as respect, tolerance, justice. Opportunity to discuss real situations and personal experiences.

**Training of teachers in classroom management and prevention of aggression:** Teachers are trained to recognize early signs of aggression and to respond appropriately. Includes de-escalation techniques and positive discipline.

**Integrating Arts and Sports:** Art therapy, theater, music and sports activities as a means of expression and release of tension. It reduces stress and increases self-esteem.

**Restorative Practices:** Approaches that focus on repairing harm and restoring relationships can be effective in addressing aggression (Zehr, 2002). “In the spirit of the new philosophy in education - inclusion, Bulgarian educational institutions face the challenge of becoming a place where a new type of personality can be attracted – creative, motivated and with a new approach to problems” (Marcheva-Yoshovska, 2021, p. 7).

**Gendered Expectations:** In Western cultures, boys are often raised to be competitive, assertive, and emotionally stoic. This can normalize aggressive outbursts as part of masculinity.

**Gender Socialization:** Cultural norms often dictate that boys express aggression physically, while girls may exhibit relational aggression (Archer, 2004).

Girls, by contrast, are more often socialized to prioritize relationships, which can lead to indirect aggression (e.g., exclusion, rumor-spreading) when they feel threatened or hurt.

**Media Influence:** Exposure to aggressive behavior in video games, social media, and television may desensitize teens to violence or make it appear as a valid response to problems. For girls especially, social media dynamics can heighten relational aggression due to “likes,” visibility, and group dynamics. Boys are often socialized to express dominance through assertiveness or even aggression, while girls may be subtly encouraged to use social influence. Media, family dynamics, school environment, and peer group norms play vital roles in reinforcing these gendered behaviors.

### ***Opinions and debates***

#### ***Psychological aspects***

- The virtual environment increases impulsivity, as reactions are quick and often thoughtless;

- A false sense of impunity leads to bolder and more aggressive behavior;

- Identity change – some students create an online image that is more aggressive or dominant than their real character3).

Psychologists and educators differ in their interpretations of adolescent aggression. One side views it primarily as a developmental phase – a necessary

stage where young people learn to assert themselves, handle conflict, and negotiate boundaries. Others warn that tolerating aggressive behavior, even as a “phase,” risks normalizing violence and letting early warning signs of deeper issues - such as conduct disorders or emotional trauma – go unaddressed.

Some feminist scholars argue that female aggression has been historically underreported or pathologized, whereas male aggression has been dismissed as “boys being boys.” This lens calls for a more equitable understanding of how both genders experience and express conflict.

Psychological aspects:

The virtual environment increases impulsivity, as reactions are quick and often thoughtless.

A false sense of impunity leads to bolder and more aggressive behavior.

Identity change – some students create an online image that is more aggressive or dominant than their real character.

### **Conclusions and summary**

From the survey conducted on the factors and level of aggressiveness and asociality in adolescents and the analysis of the results obtained, the following conclusions were drawn:

1. The established presence of aggressiveness and asocial behavior is realized by students, as well as the need for independent control over their behavior.

2. The participants in the survey aged 13 – 14 are aware to some extent of the reasons related to aggressive behavior and asocial manifestations in school and outside of school, in the family and among peers, and the consequences arising from them.

3. The results of the survey do not claim or prove that aggressive behavior is not instinctive in nature, but show how early experience can suppress aggressive behavior and prevent asocial behavior.

4. Social prevention and taking measures to reduce asociality among the younger generation are needed, and this should be implemented in all spheres of public life, even in childhood.

Today, the state and society are placing greater demands on limiting negative manifestations among adolescents and on the increasingly urgent use of other methods, forms and means of influence, such as prevention. Prevention may include activities preferred and attractive to the modern generation, which would also correspond to what is useful for this age.

Aggressiveness in 13 – 14-year-old students is influenced by a complex interplay of biological, cultural, and educational factors. Understanding these influences can inform the development of targeted interventions to mitigate aggressive behavior. Aggression in early teens should not be viewed as a character flaw but rather a developmental signal – a flashing light that something needs support or attention.

Understanding the biological, cultural, and educational dimensions of this behavior can empower adults to guide teens with compassion, not just discipline.

## NOTES

1. Teacher networks, 2022: Today's and tomorrow's challenges and opportunities for the teaching profession. European Schoolnet, EUN Partnership AISBL, Brussels.
2. UNESCO, 2019. "Behind the numbers: Ending school violence and bullying".
3. UNICEF, 2024. Bulgaria – program for a safe learning environment. Stepping together to stop school violence.
4. Sindeo.org., 2025. Aggression at school – Causes, prevention and coping methods.
5. Psychology.framar.bg, 2020. Common signs of relational aggression.

## REFERENCES

- Archer, J., 2004. Sex differences in aggression in real-world settings: A meta-analytic review. *Review of General Psychology*, 8(4), 291 – 322. <https://doi.org/10.1037/1089-2680.8.4.291>. ISSN: 1939-1552.
- Archer, J. (2006). Testosterone and human aggression: An evaluation of the challenge hypothesis. *Neuroscience & Biobehavioral Reviews*, 30(3), 319 – 345. <https://doi.org/10.1016/j.neubiorev.2004.12.007>. ISSN: 1873-7528.
- Beron, R. A., Richardson, D. R. (1994). *Human Aggression*. Springer. ISBN: 978-0-306-44458-6.
- Buss, A. H. & Durkee, A. (1957). An inventory for assessing different kinds of hostility. *Journal of Consulting Psychology*, 21(4), 343 – 349.
- Durlak, J. A., Domitrovich, C. E., Weissberg, R. P., & Gullotta, T. P. (2015). *Handbook of Social and Emotional Learning: Research and Practice*. New York: Guilford Press. ISBN: 978-1462527915.
- Li, Y., Wang, L., & Zhang, J. (2021). Relational aggression in adolescents across different cultural contexts: A systematic review of the literature. *Adolescent Research Review*, 6(1), 1 – 14. <https://doi.org/10.1007/s40894-020-00143-9>. Print ISSN: 2363-8354, Online ISSN: 2363-8362.
- Marcheva-Yoshovska, P. (2021). *Resource support for children and students with special educational needs*. Veliko Tarnovo: Faber Publishing House. ISBN 978-619-00-1257-3.
- Marcheva-Yoshovska, P. (2025). Normative basis for the implementation of inclusive education. In: Y. Nunev, P. Marcheva-Yoshovska. *Inclusive education. Lecture course*. Veliko Tarnovo: Faber Publishing House. ISBN 978-619-00-1918-3.

- Putra, A. S., Waruwu, H., Asbari, M., Novitasari, D., & Purwanto, A. (2020). Leadership in the innovation era: Transactional or transformational style. *International Journal of Social and Management Studies*, 1(1), 89 – 94. <https://doi.org/10.5555/ijosmas.v1i1.89-94>.
- Siegler, R. S., DeLoache, J. S., & Eisenberg, N. (2014). How children develop. *Pearson*. ISBN-13: 978-1429299511.
- Zehr, H. (2002). The little book of restorative justice. *Good Books*. ISBN-10: 1561483761, ISBN-13: 978-1561483761.

✉ **Dr. Rositsa Dimkova, Assoc. Prof.**

ORCID iD: 0009-0007-0425-1551

WoS Researcher ID: ODK8258-2025

University of Veliko Tarnovo “St. St. Cyril and Methodius”

Veliko Tarnovo, Bulgaria

E-mail: [rdimkova@gmail.com](mailto:rdimkova@gmail.com)