AGGRESSIVENESS IN CHILDREN - A DETERMINANT OF SCHOOL DROPOUT

Daniela BOBOC¹, Natalia ROSOIU²

1 IOSUD Ovidius University, Doctoral School of Applied Science, Field of Biochemistry / Biology, Constanța, Romania

2 IOSUD Ovidius University, Faculty of Medicine, Department of Biochemistry, Constanța, Romania; Academy of Scientists, Bucharest, Romania

E-mails [barbulet.daniela@yahoo.com, natalia_rosoiu@yahoo.com]

Motto: "The consistent expression of love for the child is the basis of effective education. It does not matter whether it varies as a form of expression depending on time and space. What really matters is that parents meet the needs of the child and that he feels really loved..." (Ross Campbell, "Education through Love").

Abstract

A child begins his/her life in a state of total dependence on those around him/her. If his/her education is the right one, the young man or the young woman will come out of that addiction, becoming a human being with respect for himself and others, a confidence in his own powers and capable of responding enthusiastically and competently to the challenges of life. Specialised studies have shown that the situation of the family in which the child grows and everything that derives from this situation is the main cause of school dropout. The unfavourable conditions in which some children live lead them to drop out of school and take other ways, sometimes not supported by society.

Keywords: aggressiveness, children, determinant, dropout.

Introduction

More than two hundred years ago, J.J. Rousseau (1712-1779) addressed the teachers a call and a warning made famous: "Educators, learn to know your children!" The great French educator reported a major lack of education - ignoring the child, his aspirations, his interests and possibilities. The family must provide their own children with a favourable environment for development and learning. The main purpose of parenting education is to prepare the child for the future, to make him an integrated and independent adult. A child begins his life in a state of total dependence on those around him. If his / her education is the right one, the young man or the young woman will come out of that addiction, becoming a human being with respect for himself and others, a confidence in his own powers and capable of responding enthusiastically and competently to the challenges of life. The future adult will become "independent" not only financially but also intellectually and mentally. Specialised studies have shown that the situation of the family in which the child grows and everything that derives from this situation is the main cause of school dropout. The unfavourable conditions in which some children live lead them to drop out of school and take other ways, sometimes not supported by society. There is an old and excellent maxim that says: "Effective parenting is first and foremost to give the child roots to develop and then wings to fly".

Yet, there are more and more children in the last few years coming from families with a good financial situation who drop out of school. What's worse is the fact that most of them have serious behavioral disorders. I have encountered cases of young people who have fought their colleagues, mocked teachers and even were violent with them. Although the education received in the family was correct, at a certain moment they began to become aggressive. The fact that the family has lost them is a question mark. Aggression, in any form, affects quietness in the school environment, and students are not part of an environment conducive to proper education. When the first signs of aggression are observed in children, action must be taken to find the cause that has led to this behaviour and, at the same time, to find solutions to remedy this situation. This high aggression may also be based on medical causes. Through detailed analyses, certain abnormalities can be determined, resulting in this deviant behaviour being triggered. If there is a coalition between school, family, and even a doctor, the aggressiveness in children will improve and perhaps disappear. It is necessary to carry out specialized programs to solve these situations. School violence can be stopped. Teachers teaching classes with aggressive children should use those strategies to help the children control their anger. If a child is violent, it is certainly

incomprehensible. They have to find at least one positive thing in these children that they have to take advantage of in order to change the aggressive behaviour of the child, to value it, to make it understand that violence raises violence and certainly no one is happy.

Cause leading to school dropout

School abandonment can be based on a multitude of determinants. Of these, I think school absenteeism is the one that ultimately leads to the abandonment of formal education. This is a phenomenon with spectacular growth in the last decades, which is defined as a "social problem", being explained more by the socio-cultural characteristics of the environment of origin and appearing more frequently in urban and poor families. The school must have a close connection with the students' families and thus intervene from all sides in the way the pupil is motivated to learn. If the student is not helped, the abandonment tends to appear as the only solution to solve all the problems.

Another important factor is school failure. The concept of school failure does not have a unified definition because it addresses a fact dependent on the organization of the educational system, the objectives of education and the evaluation procedures. As a sphere, the concept includes the following (Riviere, 1991): difficulties in acquiring knowledge; the situation of pupils at the end of a schooling level; as "intensity" may be partial / massive; the duration may be transient / permanent; as reversible / irreversible direction. Trying to systemize the determinants of school failure. Riviere finds the most often cited causes, which intersect in two categories: institutional determinants and individual determinants. Among the indicators that are commonly used to assess the existence of a standardized school failure situation, we mention the early abandonment of the school, the gap between personal potential and outcomes, leaving the school without a qualification, the failure to meet the objectives, the failure of the final or competition examinations, social. Due to the fact that once lost the contact with the pupil's school is becoming more and more difficult to revert to the previous duties, the prevention of school dropout must work from the earliest signs. Thus, steps must be taken from the first repeated absences - in particular, discussions with the student and then with his parents in an attempt to bring him back on

course. This "counselling" can also be done in the guiding hours or at other times that would allow for free, unrestrained teacher-student dialogue. Educational factors, especially the teacher, in addition to the qualities that define his personality, must prove and observe some specific conditions, among which one can enumerate - the manifestation of an optimistic view towards education, love and dedication towards pupils - students, pedagogical mastery and pedagogical tact, the awareness of the child-student, even of the students to his real possibilities, of the positive or negative aspects of his activity and behaviour, turning him into a partner of the instructive-educational process ([3], p. 175) Some of the behavioral deviations in the school environment, including absenteeism and school dropout, are related to teachers' mistakes in teaching and to establishing inaccurate relationships among students. They can be prevented through a proper organization of life and in-school relationships, because a good school climate always affects the emotional sphere of the student's psychic state. Educating consciousness and moral conduct is not possible without trust, principled relationships, good discipline, and avoiding any psychological trauma. School abandonment of many students is unfortunately a very serious and topical situation. It is one of the major problems faced by the educational institution and it is therefore necessary for the school to draw a hand to the other institutions involved in the monitoring of this phenomenon. In this respect, it is necessary to develop strategies for differentiated and individualized treatment of pupils in the situation to abandon school. However, in order to implement such strategies, it is necessary to have a good knowledge of the students' psychological peculiarity in order to identify the psychological dimensions that allow for the subsequent development of the pupil with school difficulties. The large variations in intellectual pace and work style, resistance to lasting effort, communication skills and cognitive needs, generally existing among pupils, require actions of different organization of the teaching-learning process, by groups of students, but individual learning tasks. The school student is another important criminogenic factor in determining the delinquency behaviour, because it influences, to a large extent, the anchoring in the street groups. For example, over 65% of juvenile delinquents, from a group surveyed in 1996 by the Center for Studies and Research on Youth Affairs in Bucharest, dropped out of school ([1], p. 241).

Aggression is an instinct like any other and, under any natural conditions, it is also meant to contribute to the preservation of life and species ([2], p. 6).

Some students draw attention to the risk of school failure by their conduct, being either aggressive, hostile, excessively domineering, or isolated, retired, without interacting with the others at all. During instructive activities, posture or behavioral reactions provide important clues about their difficulties in adapting to school ([3], p. 837). One of the most important causes of aggression in children is of medical nature. Certain metabolic changes can trigger a high aggressiveness in children. The increased level of testosterone in boys is a triggering factor that can lead to serious metabolic disturbances. Also, the presence of heavy metals in the blood, especially lead and cadmium, can cause aggressive behaviour. What's most dramatic is the fact that the high level of heavy metals is more and more common in children and the consequences can be catastrophic. Parents should take immediate action when they see the change in their children's behaviour so that these can be prevented. Problems with metabolic changes that increase aggressive behaviour can be solved by performing medical treatments. The elevated level of testosterone is the main factor triggering aggressiveness in children. The presence of heavy metals in blood, more precisely cadmium and lead, is a relevant indicator to be taken into account. It is very important that there is a close collaboration between the school, the family and the doctor, and the child.

Aggressiveness in school is a form of deviant behaviour with a variety of manifestations of different intensity: on a scale of intensity from the lowest intensity, aggression involves visual confrontation, nicking, ironing, teasing, squabbling, hitting with different objects, slapping, and forms of increased intensity of aggression such as stabbing and shooting. The problem of aggression in school can and should become a theme of reflection for all those involved in the educational act. All the more so since the school has, we believe, important resources to design aggressive prevention programs and to break the vicious circle of violence in the school environment.

School failure is a cause of juvenile delinquency, a condition that in the presence of certain factors makes possible the occurrence of the phenomenon of delinquency, but it is also an effect of the psycho-social dysfunctions of the families from which minors come. At the same time, school failure is also due to

the fact that some teachers do not always find the best methods for educating the students. Entering the school environment, switching from the affective community of the family to the school's discipline community often have the meaning and proportions of a real crisis for the child. It depends on the family and the teachers how the child is going through this crisis. According to a research conducted by Stefan Popenici and his research team on "Motivation of learning and social success" carried out in 2005, it can be observed that it is extremely interesting for the way the questioned pupils perceive the role of the school in their social becoming to the models expressed. Thus, 33.8% of the students perceive school as useful in preparing them for social and professional life. This percentage is obtained by aggregating the answers of many categories - the school is generally useful through: intellectual training, education, culture, work / life training, communication / communication training, mental and physical training and behavioral education. There are also elements of school life that are not liked by pupils. First of all, the fact that the school does not offer a model is interesting in student models. Also, students are dissatisfied with the fact that the school is not related to real life or does not provide useful / practical information and is not centred on pupils and their specific needs and interests (35.8%). We think we have to think of the fact that teachers are not models for their pupils to a very small extent, nor are they interested in the models that students have.

The results show a great deal of information related to career information, guidance, and career counselling: almost two-thirds of the respondents do not answer this question or declare they have not been counselled in school. At the same time, school counselling is perceived as a determinant factor for the continuation of studies only by 2.1% of the respondents, while two-thirds say that these activities do not help them at all or only help them to succeed in life. Youth's dissatisfaction with the current educational offer is confirmed, once again, by the answers that indicate the marginal role of the school in the success of the personal model. The vast majority of the questioned pupils, who conclude the most important and broad segment of schooling - pre-university education - considers that school either does not have a significant role in the success of the chosen model, or simply cannot appreciate the influence of the school. In the opinions of the questioned students, the main factors that led to the model's

Daniela BOBOC, Natalia ROȘOIU

success are, in order, the personality traits, the physical aspect, the capitalization of chances or opportunities, before training / education and work. Again, school is not perceived as having an important role in the success of personal models. An important role in building these models is played by the media - written and visual or audio. This is visible in the typology of successful models: TV stars and high-profile people are preferred. The school also loses ground, the media (especially television) being seen not only as a complement, but also as a substitute ([5], p. 4).

Statistical data about the school abandon

In recent years, the dropout rate in pre-university education has increased by one third, from 1.8% in the school year 2000-2001, to 2.4% in 2008-2009, according to the data provided by the National Institute of Statistics.

According to the new figures for 2012 released by Eurostat, most EU Member States have made progress in meeting the Europe 2020 educational goals of reducing school dropout rates below 10% and increasing the proportion of young tertiary or tertiary education graduates to over 40% by 2020. However, there are still big differences in this regard, on the one hand, the poorer Member States, on the other hand, between women and men. On average, the share of early school leavers is currently 12.8% in the EU, down from 13.5% in 2011. In 2012, 35.8% of people aged between 30 and 34 in the EU graduated the tertiary education cycle, compared to 34.6% in the previous year [6, 7, 8].

One of the most acute problems faced by education in our country is school abandonment, a phenomenon that generates negative effects at the individual level and across the entire society. The motivation of school abandonment, according to statistical surveys in the field, is most often the poor economic situation, the disorganized family environment, the exodus of parents abroad and the lack of attractive jobs for young people. In 2013/2014, the dropout rate in primary and secondary education was of 1.5% (1.3% in primary school and 1.9% in gymnasium). The highest rate of abandonment was recorded in post-secondary education and foremen by 7.9%. In secondary and vocational education, in the 2013/2014 school year, the abandonment rate was of 2.9%. In the school year / 2014-2015 the school enrolment rate for the 0-23 age group was 73.7%, with

higher values for the female population (75.5%). In the counties, the coverage ranged between 114.6% (in the Municipality of Bucharest) and 44.6% (Ilfov County). In the school year 2014-2015, the highest level of coverage was registered in the primary cycle, in the age group of 6-10 years, of 91.4%. The lowest enrolment rate was registered for the age group 0-2 years, from the preschool education (6.7%). Birth rate and number of educational establishments decreased. In the 2009-2010 school year there were 666.1 thousand children enrolled in kindergartens, and in the school year 2014-2015 the number of children dropped to 559.6 thousand children. In addition to the number of children in kindergartens, the number of kindergartens was reduced from 1697 (in the 2009-2010 school year) to 1205 kindergartens (in the school year 2014-2015). The number of primary and secondary schools also fell from 4623 units in the 2009-2010 school year to 4050 units in the school year 2014-2015. The number of pupils enrolled in primary and lower secondary education decreased from 1,719.7 thousand children in the 2009/2010 school year to 1732.3 thousand pupils in the school year 2014-2015. In the school year 2014-2015, the number of high schools operating in Romania was of 1576 high schools, with 62 lower secondary schools compared to the 2009-2010 school year (1638 high schools). In the period 2009-2015, the number of theoretical lyceums increased (from 563 theoretical lyceums in the 2009-2010 school year to 580 theoretical lyceums in the school year 2014-2015) in line with the training and training needs of young people, in view of their entry into the labour market. However, most of the high schools in the country continue to be technology-intensive units (51.7% of the total number of high schools in the school year 2014-2015). The number of high school students dropped from 837.7 thousand pupils in the 2009-2010 school year to 727.1 thousand pupils in the school year 2014-2015 prav.ro/pbcc4r National Institute of Statistics September 12, 2016.

According to EU statistics, about six million young people drop out of school annually. This scourge had been eradicated. The system made sustained efforts before 1989 to bring each child to school. Today we are facing this phenomenon again. Every year, statistical data reveal this truth: school abandonment is maintained at high rates, with a growth trend. It is true that school dropouts have become a problem at European level, with the whole of the Union confronted with

Daniela BOBOC, Natalia ROȘOIU

early school leaving. The causes are the most diverse. These include a lack of attractiveness to what is called traditional education. Young people want something else and generally want to burn stages, considering that they can be done faster without studies. And in the EU, the main causes include poverty, the lack of education of the environment in which children grow and develop, but also certain ethnic minority or other kinds of customs. I have listed just a few of the reasons behind the departure from school. According to EU statistics, about six million young people drop out of school annually (which means about 14% of the number of pupils enrolled at the Union level). Young people who give up early on studies are considered to be those who, although aged between 18 and 24, have at most completed secondary education at the time they drop out of school. EU countries have begun to develop policies to cover the whole gymnasium cycle and lower the school dropout average to less than 10%.

Research about the school abandon due to the high level of aggression which has been determined by biochemical changes

The research involves verifying the causal relationships between the phenomena and the researched phenomena, which consists in the experimentation of the experimenter in the development and monitoring the investigated phenomenon, and then to measure and interpret its effects / impact. ([3], p. 27).

The research carried out for the elaboration of this paper was conducted in Constanta on children / young people who dropped out of school due to severe behavioral disturbances that occurred within or outside school in May-June 2018.

The research sought to highlight the influence of the biochemical changes that led to the emergence of aggressive behaviour, being the determining factor of school dropout.

We wanted to do this research only in schools in the urban environment because I wanted to highlight the link between the metabolic changes that led to increased aggressiveness and school dropout, knowing that in rural areas this phenomenon is mainly due to poor socio-economic conditions.

Objectives

• identification of metabolic changes that may cause aggressiveness in children / young people;

Academy of Romanian Scientists Annals - Series on Biological Sciences, Vol. 7, No.2 (2018)

• analysis of the results through graphical representations.

Hypotheses

Ø it is presumed that children / young people with a high level of lead and cadmium also have an increased level of aggression;

 \emptyset It is assumed that children / young people with high levels of testosterone in the blood are prone to committing violent offenses.

Lot of subjects

The lot is represented by students who have been repetitive and dropped out of school and has a total of 10 subjects, all of them belonging to the male genre.

The results will be tabulated in the table below.

No.	Subjects. Initials	Age	Abandon age in the grade
1	B.A.N.	13 years	VII
2	B.M.A.	17 years	XI
3	C.A.	14 years	VII
4	V.V.G.	14 years	VII
5	F.M.D.	14 years	VIII
6	I.A.	14 years	VIII
7	M.F.I.	18 years	XI
8	N.M.A.	15 years	IX
9	P.D.A.	14 years	VIII
10	P.M.A.	16 years	IX

Percentage analysis of table data

- 10 subjects out of which:

- 13 years old 1 subject: 10%;
- 14 years old 5 subjects: 50%;
- 15 years old 1 subject: 10%;
- 16 years old 1 subject: 10%;
- 17 years old 1 subject: 10%;
- 18 years old 1 subject: 10%.

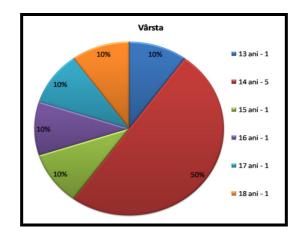


Fig. 1. Percentage distribution in relation to age Source: own data processing

From Chart 1 we note high percentage values in the age segment - 14 years, as this age is in the garden between the stage of development - puberty and adolescence, where the same cognitive, affective and social acquisitions are present. This age is a critical one, driven by the crisis of originality specific through "internal" struggles and metabolic changes.

10 subjects out of which:

- abandoned school in the 7th grade 2 subjects
- abandoned school in the 8th grade 4 subjects
- abandoned school in the 9th grade 2 subjects
- abandoned school in the 11th XI 2 subjects

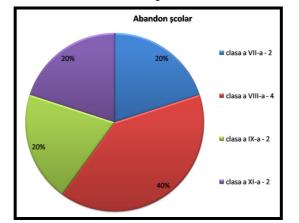


Fig. 2. Percentage distribution relative to school dropout, Source: own data processing

Academy of Romanian Scientists Annals - Series on Biological Sciences, Vol. 7, No.2 (2018)

Observing Chart 2, in a 40% share, four students dropped out of school in the eighth grade as aggressive behaviour reached alarming odds and teachers and family were unable to manage the situation.

Methods and research tools - Method of laboratory analysis

Medical analyses are the set of more or less complex procedures that provide information on the appearance and functionality of the various organs and compartments of the body as well as on the degree of health and disease affecting the body in question. We found out from the heavy metal analysis bulletins: lead and cadmium, but also testosterone analysis, various values.

Analysis and interrelation of the data obtained

The data obtained through the research methods are subject to qualitative or quantitative interpretations, depending on the specificity of the research, the proposed objectives, the purpose of the research. The results obtained can be presented in different ways.

In the following, we will present the normal values of lead, cadmium and testosterone, analyses that will be a benchmark for the biochemical values obtained by each subject.

No.	Test aspect	Biological reference range
1	Lead	0.052-0.643
2	Cadmium	0.527-1.523
3	Testosterone	0.03-0.68

Table 3. Presentation of the biological reference range

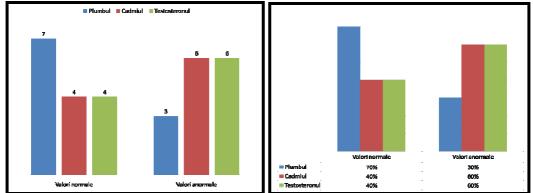
Table 4.	Results c	obtained of	n the sul	ojects batch

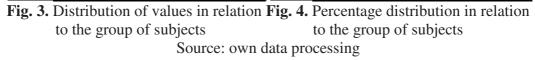
No.	Subjects. Initials.	Lead		Cadmium		Testosterone	
		Normal Values	Abnormal Values	Normal Values	Abnormal Values	Normal Values	Abnorm al Values
1	B.A.N.	0.598			1.634		1.10
2	B.M.A.	0.065		0.600			0.85
3	C.A.	0.250			1.730		1.05
4	D.G.C.	0.315		1.110			1.20
5	F.M.D.	0.110			1.545		1.15
6	I.A.	0.215		1.235		0.35	
7	M.F.I.		0.734		1.635	0.38	
8	N.M.A.		0.655	0.945		0.15	

Daniela BOBOC, Natalia ROŞOIU

9	P.D.A.	0.210		1.640		1.30
10	P.M.A.		0.655	1.537	0.20	

The state of the condensed data in the table above will be represented by graphical representations.





Conclusions

The graphs above show the following: over half of the subjects exhibited abnormal values of testosterone and cadmium, which led to the partial confirmation of the hypotheses and research objectives, namely that the increased aggression and violent acts of the subjects who dropped out of school were determined by these values. \rightarrow Aggressiveness in children is a serious problem that needs to be solved as soon as possible.

The problem of aggression in school can and should become a theme of reflection for all those involved in educational activities. All the more so since the school has, we believe, important resources to design aggressive prevention programs and to break the vicious circle of violence in the school environment.

References

- [1] Grecu, F., Rădulescu, S., M., (2003) *Juvenile Delinquency in Contemporary Society*, Lumina Lex Publishing House, Bucharest.
- [2] Konrad Lorenz, (1998) *The so-called Evil. About the Natural History* of Aggression, Humanitas Publishing House, Bucharest.

Academy of Romanian Scientists Annals - Series on Biological Sciences, Vol. 7, No.2 (2018)

- [3] Neamțu Cristina, (2003) *School Devian*, Polirom Publishing House, Iași.
- [4] Palicica Maria, (2002) *Lectures on Psychopedagogy*, University Horizons Publishing, Timisoara.
- [5] Popenici Ștefan, (2004) *Motivation of Learning and Social Success*, Institute of Educational Sciences - Educational Management, Bucharest.
- [6] http://www.imparte.ro/Ajutor/Reintegrare-sociala/Abandonul-scolar-Cauze-solutii-statistici-si-obiectivele-Uniunii-Europene-246.html.
- [7] http://www.imparte.ro/Statistici/Rata-abandonului-scolar-a-crescut-cu-otreime-in-ultimii-9-ani-52.html.
- [8] http://ec.europa.eu/romania/news/11042013_educatie_strategia_europa_2020_ro. htm.