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## Aggressiveness of adolescents and negative life events in the light of comparative studies on adolescents in correctional facilities and high schools

**Abstract:** The article presents an analysis of the results of research carried out among minors staying in rehabilitation facilities (the criterion group) and among high school students who comply with legal standards (the control group). The aim of the conducted research was to analyze the existing differences and relations between negative life events and the general level of aggressiveness and its aspects (physical aggression, verbal aggression, anger and hostility). The research tools applied include: The Questionnaire and the Buss-Perry Aggression Questionnaire. The research was of quantitative nature. The data analysis using the Student's t-test and the Chi-square test showed a number of significant differences in the severity of the general level of aggressiveness and its aspects and in the occurrence of negative life events between the research groups. The analysis of correlations using the Pearson's r coefficient between negative life events and aggressiveness (and its aspects) revealed significant relations between variables only in the group of youth from rehabilitation facilities. On the other hand, regression analysis in the group of minors from rehabilitation facilities showed that the most important predictors determining the increase in aggressiveness (and its aspects) are the negative life events relating primarily to the school environment. Factors relating to one's own or a relative's illness and being a victim of domestic violence or a victim of crime have also proved to be important.

**Keywords:** Aggressiveness, negative life events, aggression, anger, hostility, minors, crime, social rehabilitation.

## Introduction

Nowadays, young people experience many stressful situations which contribute to the increase of anger and aggression. Due to the diversity and abundance of impressions coming from the surrounding world, today's youth are more susceptible to life experiences oscillating around various negative events. These include stress factors relating to the family environment, accidents, school failures, illnesses or even experiences such as being a victim of a beating, sexual abuse, bullying, theft or assault. Referring to difficult situations, Danuta Borecka-Biernat (2013, p. 229) draws attention to the problem with their classification. They are an internally diverse group. Particularly noteworthy are those in which, according to Maria Tyszkowa (1977, p. 211), the values and aspirations of an individual are threatened or frustrated by other people. Most often, as a result of specific forms of counteracting or only acts contrary to the individual's pursuits (objectives).

Traumatic events expose adolescents to the risk of aggravation of depressive anxiety and somatic disorders. At the reactive level, anger, aggression, behavioral disorders and abuse of psychoactive substances occur most often. In safe conditions, young people suffering from complex trauma often display aggressive behaviors (e.g. reactive episodes of rage, aggressive or destructive behavior) which result in significant social, educational and economic costs (Foster, Jones 2005; Zakireh et al. 2008). A similar position is taken by the National Research Council and Institute of Medicine (2002), which rightly emphasizes that the more risk factors in the life of a child or teen, the higher the risk of aggressiveness or aggressive behavior. In addition, the literature on the subject draws attention to health factors that in combination with other risk factors such as parental failure and unfavorable family conditions, develop aggressive behaviors in childhood period (Aresenault et al., 2002; Hodgins et al. 2001, Liu, Wuerker, 2005).

Julian D. Ford and partners (2012) state that adolescents in juvenile facilities often have a complicated history of traumatic events which results in a significant number of biopsychosocial problems leading to reactive aggressiveness. Traumatic experiences are associated with non-adaptive hyperactivity, impaired information processing, impaired impulse control and aggressive cognitive patterns. Similar results were obtained in studies by Karen N. Abram et al. (2004) and Julian D. Ford et al. (2008), in which about 90% of young people in juvenile detention facilities reported a history of exposure to at least one potentially traumatic event.

Conflicts with parents, teachers and peers are an important source of emotional tensions and personal danger for young people (Jaworski, 2000, p. 27–54; Cywińska, 2013; Guskowska et al., 2001, p. 155–164; Polak, 2010, p. 23–39; Ribner, 2005; Borecka-Biernat, 2006). These numerous problems in interpersonal relations can be burdensome for some young people (Borecka-Biernat,

2012, p. 86–87) and they often fail to cope with them. Studies by Manoj K. Sharma and Palaniappan Marimuthu (2014) proved that aggressive behavior among young people is associated with experiencing physical violence in the family, the negative influence of the peer group, problems at school, psychological problems and the negative influence of the mass media. The corresponding results were also obtained by Christopher Ferguson and colleagues (2009), who concluded that the use of violence and aggression among young people is associated with permanent risk factors such as peer group, anti-social personality traits, depression and the presence of parents/guardians using psychological violence. Likewise, Raymond R. Corrado and Lauren F. Freedman (2011) emphasize the importance of such risk factors as exposure to violence, social and economic status of the family, educational dysfunctions, developmental delays, cognitive disorders. Attention is also drawn to certain personality traits resulting in a reduced ability to cope with difficult situations, failure at school and negative parental practices or anti-social attitudes of parents.

Gerald Patterson and colleagues (1982) obtained results suggesting that young people experiencing physical and mental violence in the family home often used aggression as a result of behavioral modeling as a method of coping with difficult situations. Furthermore, as Vera A. Lopez and Edmund T. Emmer (2002) suggest, the use of aggressive behaviors can be a way to gain popularity or high social status within a group by demonstrating power or control. Peer pressure can lead to aggressive behavior for fear of isolation or loss of social status.

Similarly, studies by Grażyna Poraj and Magdalena Poraj-Weder (2018), conducted among 201 people aged 19–36, showed that the development of aggression is supported by modeling aggression (observing aggression between parents and experiencing violence from parents, especially the father). Results were also obtained suggesting that the use of certain penalties is associated with specific manifestations of physical aggression. Mental violence used at home in the form of shouting, intimidating or insults showed significant links with all aspects of the aggressiveness studied (physical aggression, verbal aggression, anger, hostility, general aggression).

The aggression concept by Arnold H. Buss and Mark Perry from 1992 (Buss and Perry, 1992) is based on the 1957 theory (developed by A. H. Buss and A. Durkee), which for many years was the most popular depiction and method of studying aggression. Despite numerous analyses carried out since then, the Buss' theory related to the essence of aggression has not changed in principle (Gierowski, Grygoruk, 2012, p. 50; Poraj, Poraj-Weder 2018, p. 162). In his concept, Buss defines aggression as an individual act and as a constant property manifesting itself in a tendency to aggressive behavior. Aggression understood as an act is depicted by the author as a reaction providing harmful stimuli to another organism. Buss identifies aggression, understood as an individual disposition to behave aggressively, with aggressiveness and describes it as a permanent

characteristic of an individual that determines the frequent manifestation of aggression in behavior (Gierowski et al., 2012a, p. 50; Kosewski, 1977; Krahé, 2006).

Moreover, Józef K. Gierowski and Justyna Grygoruk (2012, p. 50) point out that the Buss' concept of aggression proposes to distinguish between an outwardly directed reaction of aggression (manifested actively towards specific people) and a reaction expressed in the form of verbal statements and consisting in adopting a generalized, negative and suspicious attitude towards the environment, which he describes as hostility. Moreover, the author treats emotional reactions (anger) as variables influencing the course of aggressive behavior. Therefore, Buss lists three terms referring to three aspects of aggressive behavior – external reaction (aggression), attitude (hostility) and emotional reaction (anger). Aggression is understood as a single act of behavior that can be caused by a factor such as frustration. An aggressive reaction is an annoying, undesirable stimulus for the victim and takes place in the process of interaction between people. According to Buss, it can manifest itself in the form of angry or instrumental, physical or verbal, direct or indirect and active (by taking an aggressive action) or passive (by not reacting) aggression. Anger, on the other hand, concerns physiological reactions of the body, it is accompanied by unpleasant tension, it has drive properties that intensify aggression. Reducing this tension during an outbreak of fury brings relief to the individual. To sum up, A. H. Buss is considered to be the creator of the classic definition of aggression, who understood it as a reaction providing harmful stimuli to another organism. However, this definition has been extended by two important elements: intent to act aggressively and avoiding harm. Thus, both actions and thoughts and aggressive wishes are considered to be aggression, as well as a lack of action which, as a consequence of not providing support, causes various damages. The present study adopts the division of aggressive behaviors according to the above concept by A. Buss (1992).

## Aim of the research

The aim of the research was to analyze the existing differences and relations between negative life events (independent variables) and aggressiveness (dependent variable) manifested in the form of physical aggression and verbal aggression, expressed by anger and hostility. The research was of a comparative nature and was carried out in two groups of young people: from social rehabilitation facilities (the criterion group) and general secondary school students (the control group).

With reference to the aim of the study, four research hypotheses were put forward concerning the differences in intensity of the examined variables (H1 and H2), correlation between the variables (H3) and regression between the examined variables (H4). They are as follows:

H1: The examined groups of adolescents (criterion vs. control) are significantly differentiated by the overall level of aggressiveness (and its aspects);

H2: The examined groups of adolescents (criterion vs. control) are significantly differentiated by the intensity of negative life events;

H3: Negative life events are significantly related to aggressiveness (and its aspects) in both examined groups of adolescents;

H4: Negative life events significantly predict an increase in the level of aggressiveness (and its aspects) in both examined groups of adolescents.

In order to respond to these research hypotheses, statistical analyses were performed using the IBM SPSS Statistics 22 package.

## Research subjects

The research involved 266 teens. The research was conducted in four juvenile correctional facilities and two general secondary schools. The study involved 133 wards of correctional facilities (52 girls and 81 boys) and 133<sup>1</sup> high school students (66 girls and 67 boys) aged 16–18.

## Tools

For the purposes of the research, a questionnaire consisting of two parts was developed. The first part (particulars) includes questions about sociodemographic variables such as gender, age, education and family status. The second part included questions concerning negative life events occurring in the lives of the surveyed youth within the last three years up to the survey. The following categories of negative life events were considered:

- a) Death of parents or siblings (SRR),
- b) Own illness or that of close relatives (CWB),
- c) Judicial record of parents or siblings (KSRR),
- d) Being a victim of domestic violence or being a victim of crime (OP),
- e) Sudden change of school, suspension of student rights at school, expulsion from school, class repetition, harassment by teacher (NZS),
- f) Divorce of parents, loss of job by one parent, sudden change of the place of residence (NZR),
- g) Negative life events concerning a peer group (rejection by a peer group, unhappy infatuation – NZGR).

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<sup>1</sup> The number of questionnaires carried out in the control group was initially higher; for further analyses a group corresponding to the number of the rehabilitated group was selected.

- h) The research also used the Buss-Perry Aggression Questionnaire Scale (AQ) used to assess the degree of aggressiveness and the forms in which it is manifested (physical aggression, verbal aggression, anger and hostility).

## Results

### Descriptive statistics of the examined variables

The characteristics of the examined variables began with descriptive statistics – the mean, standard deviation and median were determined. The distribution test of the examined variables showed that the distributions are parametric. Then, the parametric T-Student test and Chi-square test were used to analyze the existing differences between the examined variables. Using the Pearson correlation coefficient, the existing relationships between the examined variables were determined by groups. In the final analyses, the stepwise regression method was used in order to identify the most significant negative life events predicting the intensity of the dependent variable (aggressiveness and its aspects).

Analyzing the data obtained in Table 1, it can be concluded that belonging to a group (criminal adolescents – the criterion group, high school adolescents – the control group) significantly differentiates the respondents in relation to all the scales of aggressiveness. The average result of general aggressiveness and its individual aspects significantly differentiates the examined groups of young people ( $p < 0.01$ ). In the criterion group the average result of physical aggression was 30.50 ( $SD = 7.80$ ); verbal aggression 17.71 ( $SD = 4.12$ ); anger 23.37 ( $SD = 6.44$ ); hostility 25.21 ( $SD = 7.48$ ); general aggression 96.81 ( $SD = 21.89$ ). In the control group the average result of physical aggression was 19.45 ( $SD = 7.61$ ); verbal aggression 15.14 ( $SD = 4.09$ ); anger 18.27 ( $SD = 6.51$ ); hostility 21.60 ( $SD = 7.38$ ); general aggression 74.46 ( $SD = 20.29$ ).

Table 1. Descriptive statistics and analysis of differences in the examined aspects of aggressiveness in both examined groups

Group		Physical aggression	Verbal aggression	Anger	Hostility	General aggression
Criterion group N=133	M	<b>30.50</b>	<b>17.71</b>	<b>23.37</b>	<b>25.21</b>	<b>96.81</b>
	Median	30.00	18.00	24.00	25.00	98.00
	SD	7.80	4.12	6.44	7.48	21.89
Control group N=133	M	<b>19.45</b>	<b>15.14</b>	<b>18.27</b>	<b>21.60</b>	<b>74.46</b>
	Median	18.00	15.00	17.00	22.00	74.00
	SD	7.61	4.09	6.51	7.38	20.29

Total N=266	M	<b>24.97</b>	<b>16.42</b>	<b>20.82</b>	<b>23.40</b>	<b>85.63</b>
	Median	25.00	16.00	21.00	24.00	84.00
	SD	9.47	4.29	6.95	7.63	23.85
p-value for the T-test		<b>&lt;0.01</b>	<b>&lt;0.01</b>	<b>&lt;0.01</b>	<b>&lt;0.01</b>	<b>&lt;0.01</b>

*N* – number of persons; *M* – average; *SD* – standard deviation; *p* – significance level.

The above data (Table 1) gave grounds to adopt the first hypothesis (H1) assuming that the examined groups of adolescents (criterion vs. control group) significantly differentiate the overall level of aggressiveness (and its aspects). This hypothesis was confirmed for each aspect of aggressiveness (physical aggression, verbal aggression, anger, hostility) and general aggression with their significantly higher intensity in the group of adolescents from rehabilitation facilities.

The next step was to check whether the occurrence of negative life events significantly differentiates the examined groups of young people. The results obtained (Table 2) showed that the average occurrence of most of the analyzed negative life events significantly ( $p < 0.01$ ) differentiates the examined groups of young people.

Table 2. Descriptive statistics and analysis of differences in the negative life events in both examined groups

Group		SRR	CWB	KSRR	OP	NZS	NZR	NZGR
Criterion group N = 133	M	<b>0.39</b>	<b>0.91</b>	<b>0.91</b>	<b>0.42</b>	<b>1.27</b>	<b>0.98</b>	<b>0.46</b>
	Median	0.00	1.00	1.00	0.00	1.00	1.00	0.00
	SD	0.58	0.93	0.94	0.58	0.87	0.90	0.54
Control group N=133	M	<b>0.09</b>	<b>0.84</b>	<b>0.11</b>	<b>0.12</b>	<b>0.08</b>	<b>0.27</b>	<b>0.58</b>
	Median	0.00	1.00	0.00	0.00	0.00	0.00	1.00
	SD	0.32	0.96	0.38	0.32	0.34	0.57	0.62
Total N=266	M	<b>0.24</b>	<b>0.87</b>	<b>0.51</b>	<b>0.27</b>	<b>0.68</b>	<b>0.62</b>	<b>0.52</b>
	Median	0.00	1.00	0.00	0.00	0.00	0.00	0.00
	SD	0.49	0.94	0.82	0.49	0.89	0.83	0.59
p-value for the T-test		<b>&lt;0.01</b>	<b>0.51</b>	<b>&lt;0.01</b>	<b>&lt;0.01</b>	<b>&lt;0.01</b>	<b>&lt;0.01</b>	<b>0.09</b>

*N* – number of persons; *M* – average; *SD* – standard deviation; *p* – significance level.

The analysis of the obtained overall results showed a number of statistically significant differences between the examined groups. These data indicate that a greater number of negative life events occur among young people from rehabilitation facilities. A statistically significant difference between the examined groups was found in relation to negative life events concerning the death of

parents or siblings ( $p < 0.01$ ); the criminal record of parents or siblings ( $p < 0.01$ ); being a victim; the school environment and the family environment. No significant differences between the examined groups were obtained in relation to two negative life events: own illness or relatives' illness ( $p = 0.51$ ) and negative life events concerning a peer group ( $p = 0.09$ ).

On the basis of the data obtained (Table 2), there are grounds for a partial adoption of the second hypothesis (H2) assuming that the examined groups of adolescents are significantly differentiated by the intensity of negative life events. Confirmation of the hypothesis was found for five out of seven types of negative life events.

No confirmation of the hypothesis was found in relation to two negative life events oscillating around the illness of oneself or relatives and concerning the peer group. These data give grounds to believe that such life events of a similar level occur in both groups of the examined youth.

Detailed analysis (Table 3) of each negative life event in both examined groups with the use of the chi-square test allowed to obtain information on the occurrence of statistically significant differences and the number of people indicating a specific negative life event.

The analysis with the Chi-square test showed a number of statistically significant differences, which indicate that more negative life events occur among youth from social rehabilitation facilities. The strongest value of the *Phi* dependence coefficient indicates that a negative life event concerning class repetition occurs much more often among the subjects from correctional facilities. Moderately differentiated coefficients of differences between the examined groups of young people (with their significant prevalence in the criterion group) were found in relation to negative events concerning the death of mother, father, brother or sister, divorce of parents, loss of job by one of the parents, criminal record of one of the parents, criminal record of siblings, being a victim of domestic violence, sudden change of the place of residence, suspension of student rights at school, expulsion from school, repetition of a class and being a victim of crime. In the control group, a statistically significant difference ( $p = 0.001$ ) was found in the absence of negative life events. The obtained data are presented in Table 3.

No significant differences between the examined groups were found in relation to negative life events concerning their own illness ( $p = 0.24$ ), illness of a family member ( $p = 0.22$ ), illness of another close person such as a friend/cousin ( $p = 0.25$ ), harassment by teachers ( $p = 0.16$ ), rejection by a peer group ( $p = 0.13$ ) and unhappy infatuation ( $p = 0.27$ ).

Table 3. The numerical and percentage distribution of negative life event indicators in the criterion and control group taking into account the level of significance of the differences

Negative life events		Group		Total
		Criterion group N=133	Control group N=133	
Death of mother	n	8	2	10
	%	6.0%	1.5%	3.8%
<b>p=0.05, Phi=0.19, x<sup>2</sup>=3.74 (df=1)</b>				
Death of father	n	26	8	34
	%	19.5%	6.0%	12.8%
<b>p=0.001, Phi=0.20, x<sup>2</sup>=10.93 (df=1)</b>				
Death of brother/sister	n	18	3	21
	%	13.5%	2.3%	7.9%
<b>p=0.001, Phi=0.21, x<sup>2</sup>=11.63 (df=1)</b>				
Divorce of parents	n	51	12	63
	%	38.3%	9.0%	23.7%
<b>p&lt;0.001, Phi=0.35, x<sup>2</sup>=31.64 (df=1)</b>				
Parent losing job	n	35	18	53
	%	26.3%	13.5%	19.9%
<b>p=0.009, Phi=0.16, x<sup>2</sup>=6.81 (df=1)</b>				
Criminal record of one parent	n	39	3	42
	%	29.3%	2.3%	15.8%
<b>p&lt;0.001, Phi=0.37, x<sup>2</sup>=36.64 (df=1)</b>				
Criminal record of siblings	n	31	8	39
	%	23.3%	6.0%	14.7%
<b>p&lt;0.001, Phi=0.24, x<sup>2</sup>=15.89 (df=1)</b>				
Being a victim of domestic violence	n	38	12	50
	%	28.6%	9.0%	18.8%
<b>p&lt;0.001, Phi=0.25, x<sup>2</sup>=16.65 (df=1)</b>				
Sudden change of place of residence	n	45	6	51
	%	33.8%	4.5%	19.2%
<b>p&lt;0.001, Phi=0.37, x<sup>2</sup>=36.90 (df=1)</b>				
Suspension of student rights at school	n	19	2	21
	%	14.3%	1.5%	7.9%
<b>p&lt;0.001, Phi=0.24, x<sup>2</sup>=14.94 (df=1)</b>				

Negative life events		Group		Total
		Criterion group N=133	Control group N=133	
Expulsion from school	n	40	0	40
	%	30.1%	0.0%	15.0%
<b><math>p &lt; 0.001</math>, <math>\Phi = 0.42</math>, <math>\chi^2 = 47.08</math> (df=1)</b>				
Class repetition	n	98	2	100
	%	73.7%	1.5%	37.6%
<b><math>p &lt; 0.001</math>, <math>\Phi = 0.75</math>, <math>\chi^2 = 147.68</math> (df=1)</b>				
Being a victim of crime	n	19	4	23
	%	14.3%	3.0%	8.6%
<b><math>p = 0.001</math>, <math>\Phi = 0.20</math>, <math>\chi^2 = 10.71</math> (df=1)</b>				
No negative events	n	1	14	15
	%	0.8%	10.5%	5.6%
<b><math>p = 0.001</math>, <math>\Phi = -0.21</math>, <math>\chi^2 = 11.94</math> (df=1)</b>				

*N*, *n*- number of respondents;  $\chi^2$  – Chi-square; *Phi* – phi coefficient; % – percentage of respondents; *p* – level of significance.

Based on the obtained percentage data of indications of the occurrence of a given negative event, it can be concluded that the most common event in the group of youth from correctional institutions is class repetition ( $n=98$ ; 73.7%), illness of a family member ( $n=62$ ; 46.6%), unhappy infatuation ( $n=54$ ; 40.6%) and divorce of parents ( $n=51$ ; 38.3%). In turn, in the control group the most frequent negative life events include: unhappy infatuation ( $n=63$ ; 47.4%), illness of a family member ( $n=52$ ; 39.1%), own illness ( $n=33$ ; 24.8%) and illness of another close person ( $n=27$ ; 20.3%).

It is also worth noting that in the control group there was no negative life event at all oscillating around expulsion from school. In the criterion group, only one person declared an absence of negative life events.

## Relationships between the examined variables

In the further course of the study, we attempted to determine the existing relationships between the occurrence of negative life events in the examined groups of adolescents and aggressiveness manifested in the form of physical aggression, verbal aggression, expressed by anger, hostility and general aggression. For this purpose, the *r-Pearson* coefficient was used aiming to investigate the relationships between the examined variables (Table 4).

Table 4. Negative life events and aggressiveness in the examined groups of young people

Group			Physical aggression	Verbal aggression	Anger	Hostility	General aggression
Criterion group N=133	Negative life events	R	0.32**	0.36**	0.34**	0.28**	0.29**
Control group N=133	Negative life events	R	0.08	0.18	0.22	0.27	0.25

N – number of persons; \*correlation at 0.05 (both sides); R – r-Pearson correlation; p – significance level

Analysis of the results obtained (Table 4) shows that physical aggression ( $R=0.31$ ;  $p<0.01$ ), verbal aggression ( $R=0.36$ ;  $p<0.01$ ), anger ( $R=0.34$ ;  $p<0.01$ ), hostility ( $R=0.28$ ;  $p<0.01$ ) and general level of aggressiveness ( $R=0.29$ ;  $p<0.01$ ) are in a significant positive relationship with negative life events in the criterion group. The above result authorizes a statement that the more negative life events among youth from social rehabilitation facilities, the relatively higher the level of physical aggression, verbal aggression, anger, hostility and general level of aggressiveness. In the control group no significant correlations between the examined variables were found ( $p>0.05$ ).

In order to check in detail the existing relationships between negative life events and aggressiveness (its aspects) in relation to young people from social rehabilitation facilities as well as students from high schools, the r-Pearson coefficient was calculated. The obtained results are presented in Tables 5 and 6.

Table 5. Analysis of the relationships between variables in the criterion group

Criterion group N=133		Physical aggression	Verbal aggression	Anger	Hostility	General aggression
SRR	R	0.15	0.02	0.06	0.06	0.09
CWB	R	0.36**	0.32**	0.24**	0.26**	<b>0.35**</b>
KSRR	R	<b>0.17*</b>	<b>0.23**</b>	<b>0.23**</b>	0.12	<b>0.21*</b>
OP	R	-0.05	0.06	-0.11	-0.06	-0.06
NZS	R	<b>0.32**</b>	<b>0.29**</b>	<b>0.34**</b>	<b>0.19*</b>	<b>0.34**</b>
NZR	R	0.08	0.17	0.13	0.12	0.14
NZGR	R	0.06	<b>0.22**</b>	<b>0.24**</b>	<b>0.27**</b>	<b>0.23**</b>

N – number of persons; R – value of r-Pearson coefficient; \*\*The correlation is significant at 0.01 (both sides); \*The correlation is significant at 0.05 (both sides).

In the light of the obtained results concerning the criterion group, it can be concluded that:

- a higher intensity of negative life events related to one’s own illness or illness of one’s relatives corresponds on average to a higher intensity of physical aggression, verbal aggression, anger, hostility and general aggression;
- a higher intensity of negative life events related to criminal record of parents or siblings corresponds on average to a higher intensity of physical aggression, verbal aggression, anger, hostility and general aggressiveness;
- a higher intensity of negative life events related to the school environment corresponds on average to a higher intensity of physical aggression, verbal aggression, anger, hostility and general aggression;
- a higher intensity of negative life events related to a peer group corresponds on average to a higher intensity of physical aggression, verbal aggression, anger, hostility and general aggression.

No significant correlations in the criterion group were found in relation to negative life events concerning the death of parents or siblings, being a victim of crime or abuse and the family environment.

On the basis of the obtained data (Table 6) concerning the control group, only one statistically significant weak positive correlation was observed, indicating that with the increase of negative life events concerning being a victim of crime or abuse, the intensity of verbal aggression relatively increases.

Table 6. Analysis of the relationships between variables in the control group

Control group N=133		Physical ag- gression	Verbal ag- gression	Anger	Hostility	General ag- gression
SRR	R	0.01	-0.09	-0.01	-0.01	-0.02
CWB	R	-0.02	0.07	0.10	0.01	0.04
KSRR	R	0.04	-0.03	-0.01	0.04	0.02
OP	R	-0.10	<b>0.19*</b>	0.15	-0.10	-0.16
NZS	R	-0.10	-0.06	-0.16	-0.15	-0.16
NZR	R	-0.13	0.01	-0.06	-0.01	-0.07
NZGR	R	-0.13	-0.10	-0.13	-0.03	-0.12

N – number of persons; R – value of r-Pearson coefficient; \*\*The correlation is significant at 0.01 (both sides); \*The correlation is significant at 0.05 (both sides).

On the basis of the data obtained (Table 5 and 6), the third hypothesis (H3) assuming that negative life events are significantly related to aggressiveness (its aspects) in both examined groups of young people could not be fully confirmed.

As the collected results showed, a considerable number of significant correlations were obtained in the criterion group with respect to only a part of

the examined negative life events. In the control group, on the other hand, only one weak correlation was obtained.

## Analysis of regression between variables

The subject of further investigations was to check the existing relationships between the examined variables in the regression model. This method made it possible to select only those variables (negative life events) which significantly predict the intensity of aggressiveness (its aspects) among youth from the criterion and control groups.

In the control group, the analysis of the significance of regression coefficients in the model relating to each aspect of aggressiveness and its overall level showed that the model did not match the data ( $p > 0.05$ ). This gives grounds to believe that negative life events do not significantly predict the increase in the overall level of aggressiveness or each of its aspects. Thus, further analyses were carried out exclusively for the young people from the criterion group.

On the basis of the conducted regression analysis (Table 7), it was found that in model 1 there were two variables which significantly contributed to the intensification of aggressiveness manifested in the form of physical aggression. The proposed model transpired to be well matched to the data  $F(2.262) = 53.34$ ;  $R^2 = 0.372$ ;  $p < 0.001$ . The above predictions explain 37% of variances of the physical aggression variable. The obtained regression result authorizes a statement that negative life events concerning school environment (Beta=0.189;  $p = 0.004$ ) such as sudden change of school, suspension of student's rights at school, expulsion from school, class repetition, harassment by teachers and negative life events concerning illness of oneself or relatives (Beta=0.123;  $p = 0.012$ ) significantly predict intensification of physical aggression among youth from social rehabilitation facilities.

With regard to the verbal aggression variable, there are two predictors in model 2, explaining a total of 19% of the verbal aggression variances. The model transpired to be well matched to the data  $F(2.261) = 16.527$ ;  $R^2 = 0.190$ ;  $p < 0.001$ . The analysis of variances in each case proved to be statistically significant  $p < 0.001$ . The standardized regression coefficients in the model showed two statistically significant relationships that give grounds for a statement that negative life events concerning school environment (Beta=0.180;  $p = 0.017$ ) such as sudden change of school, suspension of student's rights at school, expulsion from school, class repetition, harassment by teachers and negative life events concerning illness of oneself or relatives (Beta=0.160;  $p = 0.004$ ) significantly predict intensification of verbal aggression among youth from social rehabilitation facilities.

Table 7. Estimation of stepwise regression coefficients against aggressiveness aspects in the criterion group

Model		Non-standardized coefficients		Standardized coefficients	<i>p</i>
		B	Standard error	Beta	
Physical aggression					
1	(Constant)	35.373	2.278		0.000
	NZS	2.005	0.698	0.189	<b>0.004</b>
	CWB	1.234	0.489	0.123	<b>0.012</b>
Verbal aggression					
2	(Constant)	20.936	1.484		0.000
	NZS	0.863	0.360	0.180	<b>0.017</b>
	CWB	0.725	0.160	0.160	<b>0.004</b>
Anger					
3	(Constant)	30.740	2.368		0.000
	NZS	1.508	0.565	0.194	<b>0.008</b>
	CWB	1.061	0.396	0.145	<b>0.008</b>
	OP	1.877	0.794	0.134	<b>0.019</b>
Hostility					
4	(Constant)	32.143	2.175		0.000
	CWB	0.942	0.374	0.117	<b>0.048</b>
General aggression					
5	(Constant)	114.828	7.740		0.000
	NZS	5.099	1.880	0.191	<b>0.004</b>
	CWB	3.868	1.316	0.154	<b>0.007</b>

B – non-standardized regression coefficient; Beta ( $\beta$ ) – standardized regression coefficient, *p* – significance level.

With regard to the anger variable, model 3 includes three predictors explaining 24% of variances of the anger variable. The model is well matched to the data  $F(3.260)=17.971$ ;  $R^2= 0.243$ ;  $p<0.001$ . The analysis of variances in three cases proved to be statistically significant  $p<0.001$ . The obtained regression result authorizes a statement that negative life events concerning school environment (Beta=0.194;  $p=0.008$ ) such as sudden change of school, suspension of student's rights at school, expulsion from school, class repetition, harassment by teachers; negative life events concerning illness of oneself or relatives (Beta=0.145;  $p=0.008$ ) and negative life events concerning (Beta=0.134;  $p=0.019$ ) experiencing domestic

violence and being a victim of crime significantly predict intensification of anger among youth from social rehabilitation facilities.

With regard to the hostility variable, regression analysis showed that there was only one predictor in model 4. The model transpired to be well matched to the data  $F(1.262)=9.484$ ;  $R^2= 0.088$ ;  $p<0.001$ . The information obtained gave grounds to the conclusion that the above predictor explains 9% of the variances of the hostility variable. The obtained result authorizes a statement that negative life events related to the illness of oneself or relatives ( $Beta=0.117$ ;  $p=0.048$ ) significantly predict the intensification of hostility attitudes among youth from social rehabilitation facilities.

The results obtained with regard to the overall level of aggressiveness showed that there were two predictors in model 5 explaining 29% of the variances. The model transpired to be well matched to the data  $F(2.261)=27.364$ ;  $R^2=0.285$ ;  $p<0.001$  as the analysis of variances in both cases proved to be statistically significant  $p<0.001$ . Standardized regression coefficients in the model showed a moderate statistically significant relationship, which informs that in people from social rehabilitation facilities the increase in general level of aggressiveness is conditioned by experiencing negative life events concerning school environment ( $Beta=0.191$ ;  $p=0.004$ ) and negative life events concerning illness of ones' own or relatives ( $Beta=0.154$ ;  $p=0.007$ ).

It should be noted that negative life events concerning the school environment predict a significant increase in physical aggression, verbal aggression, anger and general level of aggressiveness among the examined young people from the criterion group. Similarly, negative life events related to the illness of oneself or relatives showed a significant prediction of the increase of all aspects of the examined aggressiveness including its general level.

The obtained results give grounds for partial confirmation of the fourth hypothesis (H4) assuming that negative life events significantly predict an increase in the level of aggressiveness (its aspects) in both examined groups of young people. The lack of confirmation of the above thesis can be found in relation to the control group, where standardized regression coefficients did not show significant relationships between negative life events and aggressiveness (and its aspects). In the criterion group, only a part of the examined negative life events showed significant conditioning of the dependent variable.

## Conclusions

It can be stated that the obtained results of empirical research are consistent with the view formulated in the literature on the subject, that the events which are the source of traumatic events in the life of adolescents are quite common. This view is confirmed, among others, by research carried out by Nina Ogińska-

Bulik (2010), on the basis of which the author stated that the research conducted among Polish teenagers aged 14–18 years proves that 72% of the subjects have experienced a negative life event in their lives, including loss of a loved one, a chronic or acute illness, an accident or an injury. Similarly, a study conducted by Małgorzata Dąbkowska (2006) indicates that “70% of children experience various types of traumatic events, mainly physical violence, emotional neglect or sexual abuse. These studies correspond to the results obtained by Soraye Seedat et al. (2004) on the basis of which it was found that more than 75% of adolescents in the United States, South Africa and Kenya experience at least one traumatic event during their lifetime.

Judith A. Cohen et al. (2010) state that the most common traumatic situations among children include sexual abuse, violence in the home environment, participation in a catastrophe or accident, warfare, the effects of medical procedures or the death of someone close to them. A study by Jeannette Ickovics et al. (2006) showed that the most common traumatic event among teenage girls was the death of someone close to them. With regard to young people, D. Borecka-Biernat (2013, p. 230) notes that “in the lives of teenagers, difficult situations of social interaction containing an element of threat to the sense of safety, realization of aspirations or achieving a goal (satisfying needs) are particularly frequent. The results of the research indicate that young people in adolescence consider interpersonal conflicts as a source of strong sense of stress: conflict with a teacher, quarrels with schoolmates or with boyfriend/girlfriend and arguments with one or both parents or other family members.”

By taking a closer look at the functioning of school, and above all a teacher, one can distinguish the behaviors of teachers which cause a particular kind of emotional tension, disorganization of behavior and aversion to school and learning in students. A particularly flawed set of teachers’ reactions towards students consists of expressing their beliefs about students’ intellectual capabilities. Much more often teachers focus on the student’s shortcomings than on the positive side. The consequence of this type of behavior of teachers is that students experience fear, anger, humiliation, avoid contact with the teacher and reveal aggressive reactions. Such a situation leads to truancy and, in extreme cases, to school abandonment, which in turn favors students’ susceptibility to desocialization (Milewska, 1996).

Following the dynamics of the pathologizing influence of the school environment on the student, Irena Obuchowska (1983) lists the following aspects: (1) requirements set by the school, (2) negative interpersonal contacts with teachers, (3) fear of the school, (4) unsuitability of school knowledge and (5) psychological risks for students. A similar position is expressed by Grzegorz Sędek (1995), who writes that the feeling of psychological threat of students, caused by negative marks and criticism from a teacher, leads to a reduction of self-esteem in the intellectual sphere and to the search for other forms of strengthening self-

esteem. The feeling of threat in the lesson also increases the student's cognitive helplessness, lowers his/her level of school achievement and makes him/her seek support in a pathological environment. Confirmation can also be found in the research by Krystyna Ostrowska and Janusz Surzykiewicz (2005), from which it can be concluded that the important predictors of deviant behaviors of students are: the mood of the student at school and, to a lesser extent, the conflicting climate of the class and the student-teacher relationship.

Reference should also be made to the presented results of the research presented by M. Kulesza (2007, p. 276) concerning the relationship between the school and the manifested violent behaviors of students in the light of selected empirical studies. The analysis of the results of these studies allowed the author to conclude that the selected results and conclusions of more recent empirical studies prove that subjectively perceived properties of the school environment are an important determinant of antisocial, deviant or violent behaviors of students.

In view of the above mentioned results, educational activities should be directed towards teaching conflict resolution and development of social competences in the school environment; broadening the knowledge of young people about stress and constructive ways of coping with it; helping young people to learn strategies for coping with difficult situations and pro-social problem solving; creating a positive school environment, including extracurricular, sports and artistic activities; creating positive student-teacher relations. A positive school environment should include the presence of teachers and other professionals providing care and support for students. It should be emphasized that behavioral disorders shown during adolescence should be the basis for intensified work on the development of support activities the objective of which would be comprehensive assistance aimed at meeting the developmental needs of students. Moreover, the respect shown by teachers and their interest and involvement in difficult issues, often related to the student's family environment, through an active relationship respecting the subjectivity of the student would give an opportunity to develop independence and opportunities to learn about their own limitations and strengths. Due to the fact that aggressiveness (and its aspects) has shown significant links with the occurrence of negative life events in the lives of young people from social rehabilitation facilities, it may be believed that rehabilitation activities should primarily include therapeutic measures aimed at the correction of these adverse features. First of all, we should turn to the application of the Aggression Replacement Training based on the conviction that the basic causes of aggressive behaviors are deficits concerning the inability to control one's own impulsiveness, lack of pro-social skills and insufficient development of moral thinking, which does not play a corrective role in the face of undertaking behaviors that violate the legal order. Moreover, as indicated by Danuta Borecka-Biernat, Paweł Kurtek and Agata Woźniak-Krakowian (2018, after: Obuchowska, 1996), "It is important to ensure that teenagers have the need for independence, which can be achieved

through the gradual expansion of their freedom, social recognition and success. This is a way of preventing frustration and the occurrence and perpetuation of undesirable forms of behavior such as aggression, isolation, apathy". It may be important for educators and other social services to counteract activities that violate legal standards among minors. Here, preventive measures (tertiary prevention; indicated prevention) focusing on adolescents who show behavioral disorders and pathological behaviors, with the aim of preventing the recurrence of unwanted behaviors may have a special meaning.

It should be born in mind that the school environment is not only a place where students acquire knowledge and where teachers work, but above all, it is a place to establish social relations, competences and develop one's own individual identity. The type of relationship that each student will have to deal with significantly "influences" their further functioning in social life. Here, the importance of the student-teacher relationship should be emphasized, which during adolescence takes an important place in identifying themselves as students. The quality of these relationships, which is very often accompanied by formalism on the part of the teacher and a lack of individual approach, results in withdrawal, apathy, truancy, lack of faith in one's own abilities, behavioral disorders, a negative image of the school environment and a negative image of oneself. All these effects of negative relationships affect the number and intensity of the conflicts that occur, which are inevitable in any community. How these conflicts are resolved depends largely on the teacher and the quality of cooperation between the school and the student's family environment.

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