

## Cognitive and emotional factors related to high school aggressive behaviour

<sup>1</sup>Crașovan Dănuț Ioan, <sup>2</sup>Ioviță Cristina

<sup>1</sup>Ph.D. in Psychology, Lecturer Ph.D, Mihai Eminescu University of Timisoara, Department of Psychology, Timisoara, (ROMANIA).

<sup>2</sup>Ph.D. in Sociology, Lecturer Ph.D, Mihai Eminescu University of Timisoara, Department of Psychology, Timisoara, (ROMANIA).  
[psihologie.dc@gmail.com](mailto:psihologie.dc@gmail.com), [dan\\_crasovan@yahoo.com](mailto:dan_crasovan@yahoo.com)  
[crisi\\_29@yahoo.com](mailto:crisi_29@yahoo.com)

### Abstract.

Violence can be defined as the intentional use of physical force or power, threatened or actual against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation (Krug et al., 2002) [1]. In this context, violence in school can take the following forms, from mental, or psychological, to physical violence: assault – physical or sexual, bullying, drug trafficking and related violence, gangsterism, hazing or initiation, intimidation, murder, racially motivated violence, rape, robberies, sexual harassment, shootings, stabbings, theft of property and vandalism. The purpose of the present study is to identify the degree to which various factors, such as irrational and rational assessment cognitions, automatic dysfunctional and irrational thoughts, emotional growth, respectively, are associated with aggressive behaviour in high school students. The study also tracks possible gender differences in terms of the above-mentioned factors (irrational and rational assessment cognitions, automatic dysfunctional and irrational thoughts, emotional growth) in teenagers. The study participants, aged 16 to 19, attend high school classes in Timisoara.

Keywords: violence, school, irrational and rational assessment cognitions, automatic dysfunctional and irrational thoughts, emotional growth, aggressiveness.

### Introduction

Currently in education violence tends to be the most frequent conduct of school deviance. In any of its forms of expression, physical or verbal, violence impacts on human health regardless of age, and especially on teenagers. Effects of violence impact both physical and mental health. Thus, cognitively violence generates negative, depreciative self-perception and emotionally it generates anxiety, fear, emotional disorders and even suicide.

Today, increasing violence and chaos in schools has become a continuously growing daily fact (Ayers, 2009 [2]; Carlson, 2011 [3]; Ellis, 2011 [4]; Espelage, 2011 [5]; Lane, 2011 [6]; Ludwig, 2011 [7]) in most world countries. The media, research and official statistics report a significant increase in aggressive and violent behaviour in the last three decades, as evidenced in particular by the media in Europe and North America. In a study presented by Fattah (1991) [8] in Canada and conducted by the Superior Council of Education in Quebec found that 41% of primary school students are victims of school violence. In another national study reported by Olweus (1993) [9] and conducted in Norway it was found that 15% of students were involved in aggressive or violent behaviour in school. In another survey conducted in Britain by researchers from the University of Sheffield it has been reported that approximately 27% of the students had been victims of violence in school, 10% of these students being assaulted multiple times a week ([www.ncb.org.uk/cpc](http://www.ncb.org.uk/cpc)) [10].

In this context of increase in aggressive and violent behaviour in schools, some authors (Squelch, 2001) [11] argue that preventing and combating aggressive and violent behaviour in schools requires the existence of safeguards such good discipline, a culture that facilitates learning and teaching, professional behaviour of teachers and educators, and effective school leadership.

As a result of increased violence and aggression, a steady increase in research and reports on the rise of aggressive and violent behaviour in schools (Lunenburg, 2010) [12] has been noted. Currently, in addressing aggressive and violent behaviours in schools, Anglo-Saxon literature operates with concepts such as: *aggression* (committing an attack without provocation, attack consumed physically or verbally); *aggressivity* (normal component of personality, latent aggression, the potential to carry out

attacks), *aggressiveness* (a relatively favourable state for committing an aggression, supported by some features of the person which can be expressed as socially appropriate forms of aggression: competitiveness, combativeness, initiative, courage, ambition); *mobbing* (group attacks produced by children on another child; now this term is covered by the concept of bullying, which refers to both group and individual attacks/terrorisation/intimidation); *bullying* (a kind of long-term physical and psychological violence initiated by an individual or group and directed against an individual who cannot defend him-/herself in that context).

The proposed study is another approach to violent and aggressive behaviour in schools, specifically of the relationship between aggressiveness and cognitive and emotional factors, presumably associated with aggression. Thus, the following hypotheses were proposed:

H<sub>1</sub>: *the registered level of aggression is positively correlated with the registered level of automatic thoughts;*

H<sub>2</sub>: *the observed level of aggression is correlated with emotional maturity in the following sense: the high level of aggression is negatively correlated with emotional maturity;*

H<sub>3</sub>: *the registered level of aggression is correlated with irrational evaluative cognitions in the following sense: the high level of aggression is positively correlated with irrational evaluative cognitions.*

## METHOD

### Participants

This study involved teenagers (N = 139, 48,92 % females), students in 3 high schools in Timisoara without the existence of procedures to include high schools in the study – 3 different high schools were chosen (sports high school, art high school, pedagogical high school). A convenience sampling procedure was used in this study.

Eligibility criteria for participants: age between 15 and 19; holding a student status; participants are accepted in the study without gen restriction (both male and female students are accepted).

### Instruments and procedure

*Rational and Irrational Beliefs Scale* (GABS – *General Attitude and Beliefs Scale – Short Form*; authors: dr. Raymond DiGiuseppe *et al.*) adapted by Bianca Macavei, MA. Copyright: Institute for the Advanced Study of Psychotherapies and Applied Mental Health (David, 2006) [13]. GABS measures general rational and irrational evaluative cognitions. Distribution of the 26 items on the 7 subscales is as follows: (I) Rationality – 4, 9, 19, 24; (II) Global assessment of self-worth – 7, 10, 13, 22; (III) Need for achievement – 1, 11, 18, 20; (IV) Need for approval – 6, 23, 25, (V) Need for comfort – 3, 5, 17, 16; (VI) Absolutist requirement of justice – 2, 12, 14, 21; (VII) Global assessment of others – 8, 15, 26. The scale allows for two rates: a) rationality (the sum of responses for items from subscale I) and b) irrationality – the sum of items from subscales II - VII. Subjects are asked to rate on a 5-point Likert scale (1 – strongly against, 2 – against, 3 – neutral, 4 – agree, 5 – strongly agree) the extent to which they agree with statements describing irrational cognitions. There is no inverse rating, rates are summed up resulting in a subscales' total. It reveals the extent to which subjects internalise one of the irrationality sizes the scale assesses, and the degree of rationality displayed by them. Scale management can be done both individually and collectively.

For this instrument, only the irrationality rate results (subscales II, III, IV, V, VI and VII) entered in the analysis.

*Friedman Emotional Maturity Questionnaire*. The questionnaire assesses the degree of emotional maturity in terms of emotional balance and imbalance. Emotional maturity refers to Superego strength and its qualities are emotional security, a realistic perception about one's self, others and the world, Ego objectification. Emotional imbalance is caused by Ego weakness, emotional instability and is accompanied by a series of infantile, childish psycho-affective reactions. Rating is achieved by summing the scores of responses given (YES/NO) then dividing the sum to 25 (arithmetic mean of response values). The rate obtained is related to the standard and depending on the value obtained by the subject it is related to the class appropriate to that value to determine the degree of emotional maturity and infantilism. Thus a sensibility index "E" is obtained which is related to the grid. It has an etalon/standard that is interpreted as follows: 0-9.99 (infantile), 10-11.99 (childish emotional reactions), 12-13.99 (psycho-affective reactions), 14-15.99 (slight emotional immaturity), 16-17.99 (tendency for imbalance), 18-19.99

(slight emotional maturity), 20-21.99 (corresponding maturity), 22-23.99 (good maturity) and over 24 (perfect emotional maturity).

*Automatic Thoughts Questionnaire* (ATQ – Automatic Thoughts Questionnaire; authors: dr. Steve Hollon and dr. Phillip Kendall) adapted by Ramona Moldovan, MA. Copyright: Institute for the Advanced Study of Psychotherapies and Applied Mental Health (David, 2006) [13]. ATQ measures dysfunctional and irrational automatic thoughts (descriptive and inferential cognitions and specific evaluative cognitions). In instructions, the “four week” period may be amended to emphasise the clinician’s interest (e.g., the last two weeks); however a period larger than four weeks is not used because memory errors may occur. The scale is administered in the paper and pencil version, both individually and in groups. Individual administration is preferred whenever possible. It is administered without time limit. After the materials and conditions necessary for administering the scale are insured, patient assessment begins. Each of the 15 items are listed on a scale from 1 to 5, where 1 = never and 5 = almost always. ATQ total score is obtained by summing the scores on each item and interpretation of results is made with reference to the 5 normalised classes. A high score on ATQ indicates a high level of dysfunctional automatic and irrational thoughts while a low ATQ score indicates a low level of dysfunctional automatic and irrational thoughts.

*Aggression Questionnaire* (Buss, Perry, 1992) [14]. The instrument, developed and used to assess aggression, includes a total of 29 items having a good confidence level, the alpha coefficient being 0.89 and test-retest reliability coefficient being 0.80. Each item is complemented by a degree from 1 (minimum agreement) → 5 (maximum agreement). The aggression level is obtained by summing the scores for all items and it has values between 9 and 145.

Regarding the administration procedure on the population of interest, the eligible participants were informed of the purpose of the research and their informed consent was requested, while the following questionnaires were subsequently applied in the presence of a research assistant: GABS - (General Attitude and Beliefs Scale-Short Form), Copyright: Institute for the Advanced Study of Psychotherapies and Applied Mental Health (David, 2006) [13]; Friedman Emotional Maturity Questionnaire; ATQ (Automatic Thoughts Questionnaire), Copyright: Institute for the Advanced Study of Psychotherapies and Applied Mental Health (David, 2006) [13] and The Aggression Scale (Buss, Perry, 1992) [14].

## Design

The study has a non-experimental design. Data analysis was performed using the correlation method (linear correlation coefficient Pearson,  $r$  [Howitt, Cramer, 2010]) [15] under the statistic program of data analysis SPSS version 19 (Arbuckle & Wothke, 1999) [16].

## RESULTS

**Table 1.** Correlation coefficient, mean, standard deviations, statistical significance and degrees of freedom (N = 139) for testing the relationship between aggression and automatic thoughts.

analysed relationship	M	SD	r	p	df
aggression	73.55	19.38	0.419*	.001	137
–					
automatic thoughts	32.56	13.27			

\* Correlation is significant at the .01 level (2-tailed).

**Table 2.** Correlation coefficient, mean, standard deviations, statistical significance and degrees of freedom (N = 139) for testing the relationship between aggression and emotional maturity.

analysed relationship	M	SD	r	p	df
aggression	73.55	19.38	- 0.488*	.001	137
–					
emotional maturity	18.29	2.18			

\* Correlation is significant at the .01 level (2-tailed).

**Table 3.** Correlation coefficient, mean, standard deviations, statistical significance and degrees of freedom (N = 139) for testing the relationship between aggression and irrationality.

analysed relationship	M	SD	r	p	df
aggression	73.55	19.38	<b>0.384*</b>	.001	137
– irrationality	67.40	10.12			

\* Correlation is significant at the .01 level (2-tailed).

Preliminary data analysis presented in Table 1, 2 and 3 shows significant correlations between aggression and automatic thoughts, aggression and emotional maturity, and aggression and irrational evaluative cognitions, respectively.

In the first hypothesis, the analysis supports the hypothesis formulated, as can be seen from the data shown in Table 1, and show that there is a statistically significant positive correlation between aggression and automatic thoughts ( $r = 0.419$ ,  $df = 137$ ,  $p < .001$ ).

Also, regarding the second hypothesis of the study, statistical analysis results shown in Table 2 support the hypothesis formulated that between aggression and emotional maturity there is a significant negative correlation ( $r = -0.488$ ,  $df = 137$ ,  $p < .001$ ).

In the latter hypothesis, statistical analysis results presented support the hypothesis, as shown in Table 3, namely between aggression and irrational evaluative beliefs there is a significant positive correlation ( $r = 0.384$ ,  $df = 137$ ,  $p < .001$ ).

## DISCUSSION AND CONCLUSIONS

The primary analysis of the results showed that aggression of participants to the study is positively correlated with dysfunctional and irrational automatic thoughts and with irrational evaluative cognitions, namely that aggression is negatively correlated with emotional maturity.

In the first hypothesis, by which the existence of a positive correlation between aggression and dysfunctional automatic and irrational thoughts was postulated, we can see that there is a moderate positive correlation, statistically significant (see Table 1) between aggression and dysfunctional automatic and irrational thoughts, namely students with high levels of dysfunctional automatic and irrational thoughts (the average level of dysfunctional automatic and irrational thoughts is 32.56, which corresponds to Class 4 and a high level of dysfunctional-irrational automatic thoughts [David, 2006]) [13] have high levels of aggression (recorded aggression level is 73.55, which corresponds to a medium range reporting aggression [(Buss, Perry, 1992)] [14], there is a mutual inter-conditioning between the two psychological dimensions, the emergence and increase in dysfunctional automatic and irrational thoughts also causes the increase in recorded aggression levels.

Regarding the postulated correlation between aggression and emotional maturity, it can be seen that there is a moderately significant negative correlation (see Table 2) between aggression and emotional maturity, in which case it can be said that students with low emotional maturity index (the mean level for emotional maturity is 18.29, which corresponds to emotional maturity) have a high level of aggression.

For the last case, in which case the existence of a positive correlation between aggression and irrational evaluative cognitions was postulated, it can be seen that there is a low positive correlation, statistically significant, as can be seen from Table 3; students with high levels of irrational evaluative cognitions (irrational evaluative cognitions average is 67.40, which corresponds to a medium level of irrational evaluative cognitions [David, 2006]) [13] also have a high level of aggression.

Of course, the results are limited to the population from which the participants originate. Resumption of the study on extensive populations of students may or may not support results obtained in this study

In conclusion, it was found that for study participants aggression is positively associated with automatic thoughts and irrational evaluative cognitions and negatively correlated with emotional maturity. Based on these results, and limited to the participants in the study, it can be said that the emergence and increase in aggression is linked to the emergence and intensification of automatic thoughts and irrational evaluative cognitions, and the existence of a low level of emotional maturity, respectively.

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