

EMOTIONAL COMPETENCE AND AGGRESSION WITHIN STUDENTS OF SPORT AND PHYSICAL EDUCATION AND STUDENTS OF ELECTRONIC ENGINEERING

(Original scientific paper)

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Abstract

Examining aggression and emotional control in students of various professional orientations, especially students of sport studies and physical education, is of great practical importance. It is also very important for each society to act in direction of controlling and guiding the aggression in all aspects of life, especially controlling and guiding aggression in students of sport studies and physical education. Aggressive and anti-social behavior has become one of the major issues in modern society and it is placed in the limelight of various institutions and social activities. The sample of this research consists of 130 examinees, students of the Faculty of Sport and Physical Education and the Faculty of Electronic Engineering in Nis. The instruments used in the research are: the Aggression Questionnaire (A-87; Zuzul, 1987.) for measuring the level of aggression and the Emotional Competence Questionnaire (ECQ-45; Taksic, 2002. b) for measuring the level of emotional competence. The results obtained in the research reveal that students of sport studies have more pronounced aggression (especially the physical and verbal forms of aggression) when compared toward the students of Engineering, while the students of Engineering have more pronounced indirect aggression, which is characterized by expressing and releasing the negative energy toward the objects which are not directly connected to the situation in which the aggression was accumulated.

Keywords: *antisocial behavior, social activities, questionnaire, psychomotor performance, t-test, aggressive behavior*

INTRODUCTION

Aggression

Aggressive and anti-social behavior has become one of the major issues in modern society and it is placed in the limelight of various institutions and social activities. The scientific interest in aggressive behavior and its occurrence reasons has developed and grown within the last couple of years.

Different authors who have dealt with examining of the aggression have agreed in defining it as a type of behavior which harms or damages another individual in any way (Dollard et al. according to Zuzul, 1989.). Authors could not agree on one issue - whether the definition of aggressive behavior should also include the presence of an intention to harm the other person. Zuzul (1989.), in his comprehensive explanation of aggression, states that the intention to

inflict damage is obligatory and defines aggressive behavior as any response (physical or verbal) performed with the intention of damaging or harming another individual in any way, regardless of the success in the realization of the intention. Recent literature in the field of social psychology also finds the presence of intention to be of crucial importance and aggressive behavior is determined as “deliberate behavior with the aim of inflicting physical or mental pain” (Arosen et al. 2005.). Namely, it is justified to consider as aggressive a behavior which does not cause damage to another individual in the real world, but which has an intention on the part of the individual whose behavior is marked as aggressive to inflict damage to the other (Rot, 2004.). On the other hand, inflicting damage by accident cannot be considered as aggressive behavior due to lack of an intention.

Harre and Lamb (according to Crick, 2002.) has noted more than 200 different definitions of aggressive behavior suggested by numerous studies, and all of them contain two characteristics: it is a kind of behavior whose intention is to hurt someone (physically or mentally) and a kind of behavior which the victim experiences as hostile.

The psychological theories, which suggest that aggression is exclusively determined by the drives, human nature or that it is exclusively socially determined, lost their validity in the contemporary psychology. Studies (for example, Loeber, according to Coie and Dodge, 1997.) have revealed that the stability of aggression also increases by the age and that it is higher in individuals who have previously been either distinctly aggressive or distinctly non-aggressive in relation to individuals with an average level of aggression. It is also suggested that the roles of genetic inheritance and intergenerational ties are also of importance. Most of the longitudinal studies (Loeber, according to Coie and Dodge, 1997.) reveal that in adolescence the frequency of aggressive behavior reduces, while, during aging, its intensity increases. This period is also marked by changing in the types of situations which are causing aggressive behavior. In early childhood the causes of aggression are mostly found inside one's family, whereas in adolescence they are connected to the school, the surrounding or friendship (Fraser, 1996.). Adolescence, with its complex psychodynamic processes, is also marked by increasing in the intensity of aggression and especially the intensification of the drives and increasing of the sex hormones (Maccoby and Jacklin, 1980.).

Emotional competence

The models of emotional competence are grouped in two categories in psychological literature (Mayer, Caruso and Salovey, according to Taksic, 1998.): 1) the ability models – focused on the ability to process the affective information, 2) the mixed models – conceptualize the emotional competence as a variegated construct which includes the personality traits, the ability to perceive, evaluate, understand and govern the emotions, motivational factors and the affective dispositions.

RESEARCH METHOD

Research objectives

The objective of this research was to examine the differences in the degree of expressed aggression as well as the expression of some of its forms and also to examine the differences in the degree of emotional competence expression in students of the Faculty of Sport and Physical Education and students of the Faculty of Electronic Engineering in Nis.

Hypotheses

H1. There are statistically significant differences in the degree of expression of certain

forms of aggression between students of the Faculty of Electronic Engineering and students of the Faculty of Sport and Physical Education.

H2. There are statistically significant differences in the degree of expression of the dimensions of emotional competence and the total emotional competence between students of the Faculty of Electronic Engineering and students of the Faculty of Sport and Physical Education.

Research instruments

1. *Emotional Competence Questionnaire* (ECQ; Taksic, 2002. b).

The questionnaire is comprised of 45 items. It contains three subscales for evaluating the ability to perceive and understand emotions (15 items), the ability to express and name emotions (14 items) and the ability to govern emotions (16 items). The examinees are asked to express their agreeing/disagreeing with each statement on a five-level scale in which 1- means totally disagreeing and 5- totally agreeing. The maximum score, if we consider emotional competence as one total score, is 225 and the minimum is 45. The maximum score for the dimension of perceiving and understanding emotions is 75, while the minimum is 15; the maximum for the dimension of expressing and naming emotions is 70 and the minimum is 14; the maximum for the dimension of regulating and governing emotions is 80 and the minimum is 16.

The test is taken both individually or in a group; there is no time limit.

The psychometric traits of ECQ-45 are generally good, which makes the reliability of the questionnaire on different samples to range from 0.88 to 0.92. The reliability of individual scales is also acceptable. The reliability of the ability to perceive and understand emotions scale is the greatest and it ranges from 0.82 to 0.88, the ability to express and name the emotions scale ranges from 0.78 to 0.81 and it is somewhat smaller for the ability to govern the emotions scale – from 0.68 to 0.72 (Taksic, Mohoric, Munjas, 2006.).

2. *Aggression Questionnaire* (A-87; Zuzul, 1987.)

The A-87 questionnaire was designed for measuring of the aggressive behavior in provoking situations, for measuring the impulsive aggression. It is comprised of 15 items – situations and 5 possible responses are being predicted toward each situation. The situations stand for a sample of provoking situations which whom we are usually encountering in the everyday life. The five most frequent answers which are predicted for each situation represent one of the 5 modalities of impulsive aggression:

- a) Verbal manifest aggression (VM)
- b) Physical manifest aggression (PHM)
- c) Indirect aggression (IND)
- d) Verbal latent aggression (VL)
- e) Physical latent aggression (PHL)

Each examinee has to answer on a 1 to 5 scale for each of the offered types of responses (a-e) (1 – I

never behave in such a manner, 2 – I rarely behave in such a manner, 3 – I sometimes behave in such a manner, 4 – I often behave in such a manner, 5 – I behave in such a manner quite often).

The results of this questionnaire are obtained by performing a linear summation of the answers to the 15 items for each of the 5 forms of aggressive behavior (by summing the answers 'a' the result in the verbal manifest aggression subscale is obtained, by summing answers 'b' the result in the physical manifest aggression subscale is obtained, etc.) so that the possible range of scores in each of the 5 scales is from 15 to 75.

The total score represents a measure of the tendency of an individual to respond with aggression in provoking situations and it is formed by summing the

Table 1a. The structure of the research sample according to Faculty

The Faculty of the examinee	Frequency	Percent
Faculty of Sport	65	50.0
Faculty of Electronic Engineering	65	50.0
Total	153	100.0

Table 1b. The structure of the research sample according to gender

Gender	Frequency	Percent
Male	109	83.8
Female	21	16.2
Total	130	100.0

Table 1c. The structure of the research sample according to age

Age of examinees	Frequency	Percent
1985	1	0.7
1986	3	2.4
1987	4	3.1
1988	32	24.2
1989	47	36.4
1990	1	0.7
1991	31	23.9
1992	4	3.0
1993	7	5.6
Total	130	100.0

results in the 5 subscales. The total score may range from 75 to 375.

The key validation study of the A-87 Questionnaire was conveyed by Knezovic, Kulenovic, Sakic, Zarevski and Zuzul (1989.). The obtained

Cronbach's alpha coefficients of the inner consistency for individual subscales range from 0.880 to 0.912 and for the whole questionnaire 0.967, which may lead to the conclusion that A-87 is a highly homogenous instrument.

Research sample

The research was carried out on a sample of 130 examinees, students of the Faculty of Electronic Engineering and of the Faculty of Sport and Physical Education in Nis; of both genders, different years of birth and different years of university studies. The research was conducted in the period between the 7th and 25th of April in 2012. at the Faculty of Electronic Engineering and the Faculty of Sport and Physical Education in Nis. All the examinees completed the questionnaire individually while at the Faculty. The average time needed to complete the questionnaire was 25 minutes.

Research results

Tables 1a. to 1.c shows the data regarding the theoretical and empirical range of scores in the subscales which refer to specific forms of aggression. It can be noted that there are almost no major deviations in the empirically obtained scores in relation to the theoretical ranges.

The results shown in Table 2. point out to the fact that students of the Faculty of Sport and Physical Education has more pronounced aggression in the total score in the Zuzel Aggression Scale A-87 (M= 234.7) in relation to the students of the Faculty of Electronic Engineering (M=157.2). Moreover, students of the Faculty of Sport and Physical Education have more pronounced specific forms of aggression in relation to the students of the Faculty of Electronic Engineering: Verbal Manifest Aggression, Physical Manifest Aggression, Verbal Latent and Physical Latent Aggression. It is interesting to note that the students of the Faculty of Electronic Engineering have a more pronounced Indirect Aggression in relation to students of the Faculty of Sport and Physical Education.

In order to determine whether the obtained differences in the prominence of aggression and its forms are statistically significant, further analyses have been carried out and the T-test procedure for determining the significance of the differences between different groups of examinees was applied. The results are shown in Table 3.

By analyzing the results shown in Table 3. it may be concluded that there are no statistically significant differences in the prominence of each form of aggression, except for the Indirect Aggression, which is more pronounced in students of the Faculty of Electronic Engineering.

Although there are no statistically significant differences in most of the forms of aggression, and it is important to state that the prominence of most of the forms of aggression is higher within the students of the Faculty of Sport and Physical Education in relation to

Table 2. The prominence of aggression in relation to the Faculty of the examinee

Faculties	Forms of Aggression					Total aggression
	Verbal manifest aggression	Physical manifest aggression	Indirect aggression	Verbal latent aggression	Physical latent aggression	
Faculty of Sport	81.6	69.9	25.1	45.6	41.1	234.7
Faculty of Electronic Engineering	36.7	26.3	28.7	33.5	31.2	157.2

Table 3. The importance of the difference in the prominence of different forms of aggression in students of the Faculty of Electronic Engineering and students of the Faculty of Sport and Physical Education

Variables	t-test			
	Students of the Faculty	Mean	Std. Deviation	Sig.
<i>Verbal Manifest Aggression</i>	Faculty of Sport and Physical Education	81.61	225.969	.101
	Faculty of Electronic Engineering	36.70	12.370	
<i>Physical Manifest Aggression</i>	Faculty of Sport and Physical Education	69.94	224.300	.108
	Faculty of Electronic Engineering	26.30	8.898	
<i>Indirect Aggression</i>	Faculty of Sport and Physical Education	25.16	9.596	.038
	Faculty of Electronic Engineering	28.74	10.251	
<i>Verbal Latent Aggression</i>	Faculty of Sport and Physical Education	45.66	93.606	.303
	Faculty of Electronic Engineering	33.57	10.570	
<i>Physical Latent Aggression</i>	Faculty of Sport and Physical Education	41.19	93.283	.393
	Faculty of Electronic Engineering	31.27	11.371	
<i>Total Aggression</i>	Faculty of Sport and Physical Education	234.78	418.337	.139
	Faculty of Electronic Engineering	157.28	39.225	

Table 4. Emotional Competence prominence in relation to the Faculty of the examinees

Faculties	Dimensions of Emotional Competence			
	Perceiving and Understanding emotions	Naming and Expressing emotions	Governing emotions	Total Emotional Competence
Faculty of Sport	54.19	51.45	71.31	180.75
Faculty of Electronic Engineering	52.14	47.32	58.09	157.87

Table 5. Differences in the prominence of the dimensions of Emotional Competence in students of the Faculty of Electronic Engineering and students of the Faculty of Sport and Physical Education

		t-test		
Emotions	Students of the Faculty	Mean	Std. Deviation	Sig.
Perceiving and Understanding emotions	Faculty of Sport and Physical Education	54.19	7.369	.109
	Faculty of Electronic Engineering	52.14	7.494	
Naming and Expressing emotions	Faculty of Sport and Physical Education	51.45	9.143	.003
	Faculty of Electronic Engineering	47.32	6.856	
Governing emotions	Faculty of Sport and Physical Education	71.31	88.987	.234
	Faculty of Electronic Engineering	58.09	6.385	
Total Emotional Competence	Faculty of Sport and Physical Education	180.75	96.505	.068
	Faculty of Electronic Engineering	157.87	16.285	

students of the Faculty of Electronic Engineering.

The results of this research (shown in Table 4.) reveal that the total emotional competence is more pronounced in students of the Faculty of Sport and Physical Education (M=180.75) in relation to students of the Faculty of Electronic Engineering (M=157.87). It is similar when it comes to the specific dimensions of emotional competence, which means that students of the Faculty of Sport and Physical Education have higher scores in the dimensions – Perceiving and Understanding emotions, Naming and Expressing emotions and Governing emotions.

Nevertheless, in order to determine whether the obtained differences in the prominence of emotional competence and its dimensions are statistically significant, further analyses have been carried out and the T-test for determining the significance of the differences among various groups of examinees was applied. The results are shown in Table 5.

By comparing the two groups of examinees – the students of the Faculty of Electronic Engineering and the students of the Faculty of Sport and Physical Education – in relation to emotional competence, it has been determined that there are no statistically significant differences, except for the dimension of emotional competence Naming and Expressing emotions. The students of the Faculty of Sport and Physical Education have more pronounced dimension of Naming and Expressing emotions in relation to the students of the Faculty of Electronic Engineering.

Although there are no statistically significant differences, and it is important to mention that the students of the Faculty of Sport and Physical Education have higher prominence of the dimensions of Governing,

Perceiving, Understanding emotions and the Total Emotional competence in relation to the students of the Faculty of Electronic Engineering.

DISCUSSION AND CONCLUSIONS

It is of great practical importance to examine aggression and emotional control in students of different professional orientations, especially students of sport studies. It is also very important for each society to act in the direction of controlling and guiding aggression in all aspects of life, especially controlling and guiding aggression in students of sport studies. Some studies have revealed a correlation between aggression and emotional competence in adolescents (Johnston, 2003.). In certain sport disciplines, expressing and, most of all, discharge of aggression is desirable as a form of ‘ventilation’ of the organism, especially in non-contact sports. In contact sports, on the other hand, if aggression is uncontrolled, it can lead to breaking the rules and principles of the game and it can also cause injuries to the opponents. Due to the fact that the obtained results in this research have revealed that students of sport studies have a more pronounced aggression (especially the physical and verbal form of aggression) in relation to students of Engineering, it is important to pay a special attention to the processes of controlling and guiding aggression in the educational programs and trainings of the students of sport studies. This suggestion is supported by the obtained results which are related to the prominence of emotional competence, which show that students of sport studies have a more pronounced emotional competence in relation to students of Engineering. This is encouraging for the future processes of instructing and training the students of sport studies in the direction

of governing emotions, which may undoubtedly lead to a better control in expressing physical and verbal aggression.

Another important result of this study reveals that students of Engineering have a more pronounced indirect aggression, which is characterized by expressing and discharging aggression on objects which are not directly connected to the situation in which the aggression was accumulated; aggression is expressed in situations which are not connected to the time and place of its occurrence. Such results were expected due to the nature of the very process of studying at the Faculty of Sport, which is conceived in such a manner that it gives the students the chance to 'take out' and express the accumulated aggression directly through physical activity, while this is obviously not the case with the students of Engineering who have fewer chances for the 'ventilation' of aggressive behavior on the spot, which leads to transferring aggression to other situations and individuals. Thus, it may be concluded that sport activities have positive effect on eliminating the indirect aggression and that according to this; physical activity should be encouraged in students of Engineering. On the other hand, in students of sport studies, special attention should be paid to a more efficient guiding of aggression and also to the emotional sphere of the students, and consequently the future individuals employed in the field of sport and education.

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ЕМОЦИОНАЛНАТА КОМПЕТЕНЦИЈА И АГРЕСИВНОСТА КАЈ СТУДЕНТИТЕ ПО СПОРТ И ФИЗИЧКО ВОСПИТУВАЊЕ И СТУДЕНТИТЕ ПО ЕЛЕКТРОНИКА

(Оригинален научен труд)

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Апстракт

Проучувањето на агресивноста и контролата на емоциите кај студентите од различни професионални ориентации, а особено кај студентите по спорт, е од исклучително практично значење. За секое општество мошне значајно е во сите аспекти да се делува во насока на контролирање и канализирање на агресивноста, а особено кај студентите од областа по спорт. Агресивното и антисоцијалното однесување во современото општество е се поголем проблем, порди што повеќето општествени дејности и институциите му посветуваат се поголемо внимание. Во истражувањето е применет примерок од 130 студенти од Факултет за спорт и физичко воспитување и од Електронскиот факултет на Универзитетот во Ниш. Во кистражувањето се искористени следните мерни инструменти: за мерење степенот на изразеноста на агресивноста – Прашалник на агресивноста А-87 (Žižul, 1989); за мерење степенот на изразеноста на емоционалната компетентност – Прашалник на емоционалната компетентност UEK-45 (Takšić, 2002). Резултатите на истражувањето покажаа дека студентите по спорт и физичко воспитување, имаат поизразена агресивност (особено на физичките и вербалните аспекти на агресивноста) во споредба со студентите по технички науки. Наспроти тоа, студентите по техничките науки, имаат поизразена индиректна-поместена агресивност која се карактеризира со изразување и празнење кон објектите што не се директно поврзани со ситуацијата која е акумулирана со агресивност.

Клучни зборови: *антисоцијално однесување, општествени дејности, Прашалник, психомоторни особини, t-test, агресивно однесување*

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