

Aggression vs. psychic resilience system - on an example of male judo. The case study

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Abstract

Introduction

A lot of researches concerning martial arts area showed psychological links, what suggests to others researchers that they should follow and penetrate that path [1,2]. Aggression is one of the inborn human features. It is helpful in fight for survival. Scientists defined many kinds of aggression that are interconnected with each other. The basic division recognizes: instrumental aggression and hostile aggression. Instrumental aggression is when it is not intended to harm someone but to provoke a certain behavior, e.g. winning a combat. Hostile aggression on the other hand is when it is intended to harm someone [3].

So it can be said that there is a division on acceptable aggression, which can be even useful, and the one that leads to not following any rules under the influence of emotions-unacceptable aggression. Aggression can be observed in every aspect of human life (home, school, sport life). So it is reasonable to ask if sport, which is dominated by acceptable aggression (instrumental), where unacceptable aggression is immediately punished, can be a restraint of unacceptable aggressive behaviors [4].

Researches by Dąbrowski and others showed that most of judo athletes display valuable, social and moral attitude. It can be said that training that sport discipline by socially maladjusted individual can help them to find the right way [5].

Another researches in that area by Pietrzak and Cynarski showed that according to Bushidō Code, martial art it is not only the training of the body but also of the ‘spirit ‘of the warrior. Followers can enrich their characters, spirits and ability to assess and solve situations [6]. Each man has different ability to react to other people aggressive behaviors. It depends on their psychic resilience, to be precise their psychic flexibility. Psychic resilience in sport is determined as a kind of psychic disposition necessary for the athlete to achieve success in competition [7,8,9]. The term psychic resilience can be defined as a dynamic occurrence of ability of adaptation in given situations [10].

In this context, it can be said that psychic resilience has stabilizing action and means a lower inclination to disturbances, which is seen in good psychic condition [11]. Mutual interactions of both dimensions of human psychic- aggression and psychic resilience, together with sport training seem to be an interesting researching problem.

Key words: psychic resilience, aggression, judo

Material and methods

The research about aggression and psychic resilience were conducted during summer months of 2019 at Academy of Physical Education and Sport in Gdansk and judo environment in Bydgoszcz. 26 males of different age (active athletes and former athletes but still practicing in a recreational way) took part in the research. The data was gathered by answering an online ‘The aggression questionnaire’ by Buss, Perry of Amity Institute with the authors consent. The questionnaire was filled in the presence of the authors who helped if needed. The other questionnaire covered Karen Leppert of University of Jena test in which result were experimentally divided into: perseverance/consistency, sense of optimism and self-esteem [8]. Questions about age and the length of sport career were added.

The data was statistically processed with the usage of Exell 2007 and Statistica 6. The average results for aggression components (physical aggression, verbal aggression, anger and hostility) and components of psychic resilience (perseverance/ consistency, sense of optimism and self-esteem) and correlation indicator were marked, also the regression indicators R^2 was marked and presented on graphs.

Results were presented in charts Tab.1-4 and graphs Graph.1-4.

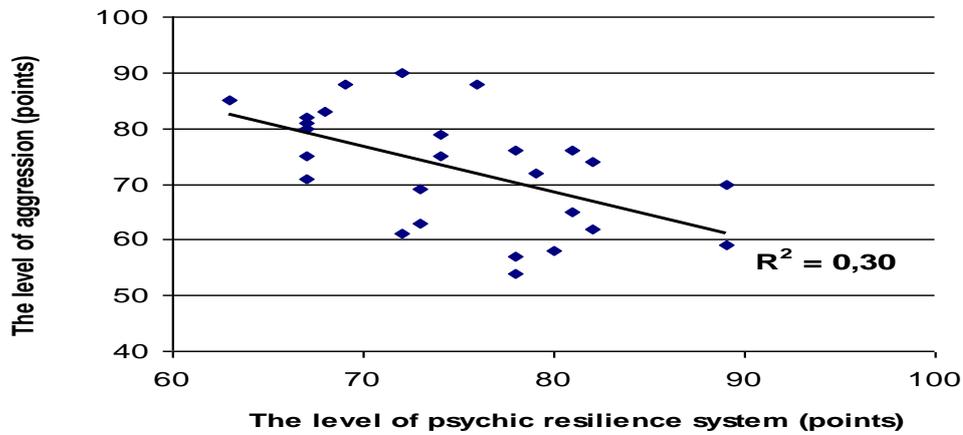
Results

Tab.1 Sociometric data of the researched group

Judo group	Age (years)	Range (years)	Length of career (years)	Range (years)
n=26	25,1±4,5	16,5-32,0	13,1±3,8	6,6-20,0

Tab. 2 Results of aggression and its components and results of psychic resilience and its components among researched group

	Total	Perseverance/ consistency	Sense of optimism	Self-esteem	-
n=25					
Psychic resilience	74,8±6,9	22,7±2,5	23,3±2,6	29,0±2,9	
Aggression	Total	Anger	Physical aggression	Hostility	Verbal aggression
	72,8±6,2	17,6±2,9	20,5±3,8	19,8±3,4	14,8±2,6

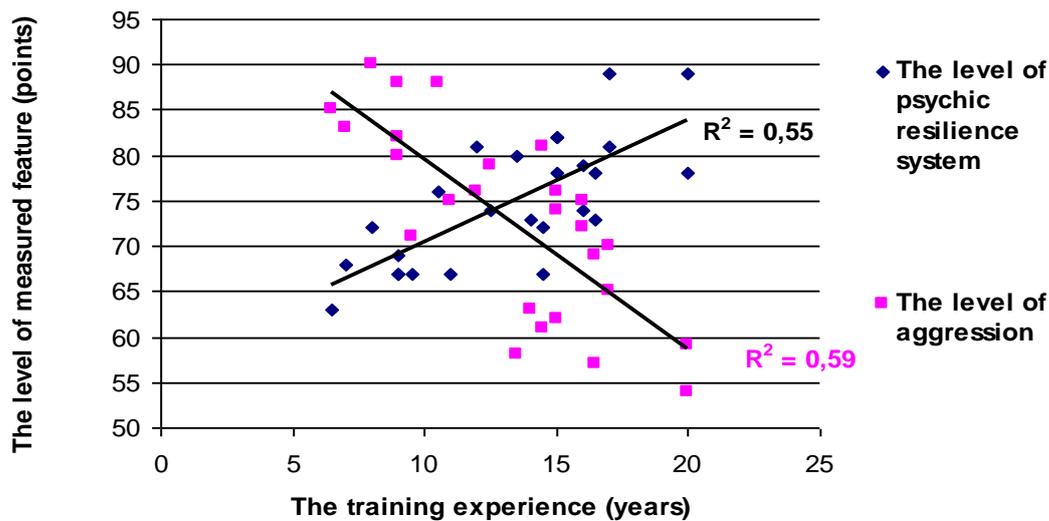


Graph. 1 Relation between aggression and psychic resilience in researched group of men practicing judo

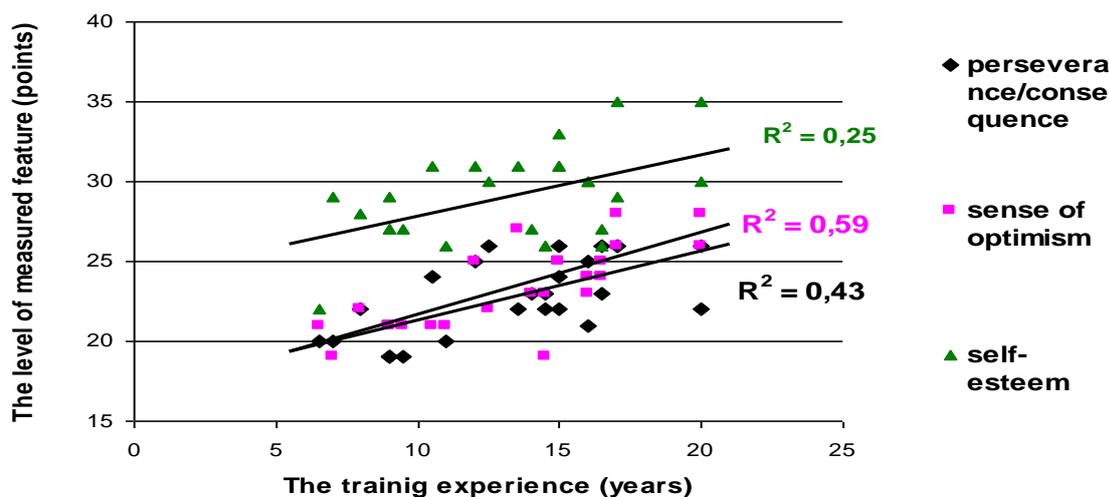
Tab.3 Correlation indicators between the level of psychic resilience and aggression components (anger, physical aggression, hostility, verbal aggression)

	R Score	p-value	
Anger	-0,464*	0,0194	significant
Physical aggression	-0,354	0,0825	not significant
Hostility	-0,303	0,1409	not significant
Verbal aggression	-0,437*	0,0291	significant

Data in the chart shows that anger and verbal aggression are negatively correlated with the level of psychic resilience in the researched group. It suggests that above mentioned components of aggression are responsible for the relation presented on Graph.1



Graph. 2 Relation between the level of aggression and psychic resilience to the length of sport career in the researched group of men practicing judo.



Graph. 3 Relation between the level of physic resilience components (perseverance/ consistency, sense of optimism, self-esteem) and the length of sport career in researched group of men practicing judo

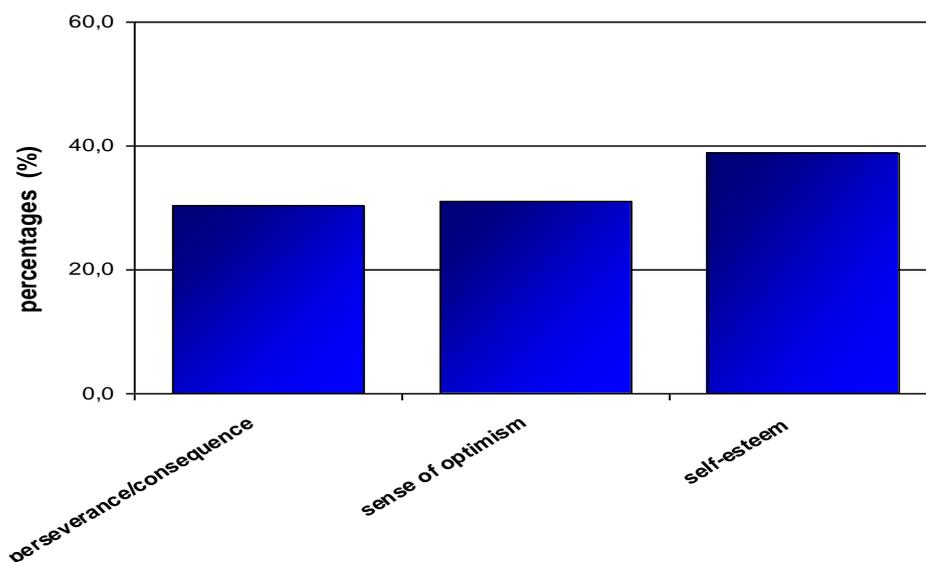
Because of the relations showed in Tab.2 and Graph.3, the correlation between two components of aggression (anger and verbal aggression) and all three components of psychic resilience was also researched.

Tab. 4. Value of Pearson's correlation between aggression components (anger, verbal aggression) and all psychic resilience components

	Perseverance/Consequence	Sense of optimism	Self-esteem	Anger	Verbal aggression
Perseverance/Consequence	1				
Sense of optymizm	0,6632 ⁿ	1			
Self-esteem	0,5435 ⁿ	0,6580 ⁿ	1		
Anger	-0,3735	-0,6589*	-0,19	1	
Verbal aggression	-0,3965*	-0,5262*	-0,2084	0,4676 ⁿ	1

* correlation significant at the level $p < 0,05$

ⁿ important correlations between components of the same components (aggression or psychic resilience) were not analysed.



Graph.4 The percentage share of components (perseverance/ consistency, sense of optimism, self-esteem) to total psychic resilience

Graph showed on Graph.4 shows that the biggest percentageshare /but not dominant/ in total psychic resilience has the value of self-esteem, on the other hand, perseverance/ consistency and sense of optimism are at the similar level.

Discussion

The sociometric data presented in Tab. 1 shows that the researched group of men practicing judo are men in the prime of life with a long length of sport career. It can be suggested that the psychological states of adults are researched who are involved in training process and probably also shaped by it. It is widely known, due to other researches, that a long-time judo training showed links to different psychological abilities of the athletes [12,13,14].

Data gathered in Tab. 2 and partially on graph Graph.4 shows participation of components of both aggression and psychic resilience in total results of them. In both cases it is difficult to point out one dominant component.

Regression graph presented on Graph. 1 between values of psychic resilience and aggression shows statistically important relation ($R^2=0,30$) between variables. It means that together with the increase of the level of psychic resilience, the aggression level decreases. However; due to the fact that relation between the level of aggression and psychic resilience is important at the low level and at the same time the data in Tab. 1 shows that psychic resilience correlates with two only components (anger and verbal aggression) and not all of them; it was concluded that there must be another factor- the length of sport career, which is linked with both the level of aggression and the level of psychic resilience.

Graph.3 suggests that together with the growth of the length of sport career the level of psychic resilience also increases and at the same time the level of aggression among judo athletes decreases.

What is interesting, earlier researches about aggression among judo athletes showed an increase in aggression level among men along with the length of the sport career [15], while in the group of women practicing judo the relation was inverse [16]. Regression analysis presented on Graph.3 indicates that all three components of psychic resilience increase along with the length of the sport career, so it can be said (Graph. 4) that in similar way they are responsible for the total increase of psychic resilience. At the same time total increase of psychic resilience correlates negatively with two components of aggression- anger and verbal aggression. Data shows in Tab. 3 presents that the sense of optimism correlates negatively at

significant level with both anger and verbal aggression, what suggests that it can be recognized as a major component of psychic resilience which lowers the aggression level. Perseverance/consistency negatively correlates only with verbal aggression at a low level. Among world-wide researches the negative correlation between aggression and a sense of optimism was already pointed out, as well as lack of correlation between physical aggression and a sense of optimism [17], as well as some relation between a sense of optimism and hostility [18,19]. These relations were at a low level, even though that a standardized test LOT-R was used and the researches were not conducted among athletes. Introducing experimental division of psychic resilience into components (perseverance/consistency, self-esteem, sense of optimism) came with, in the case of sense of optimism and partially in case of perseverance/consistency, results close to global results achieved with the use of standardized tests.

Conclusion

1. Higher level of psychic resilience of judokas results in lower level of individual aggression.
2. A sense of optimism as a component of psychic resilience is a dominant auto-regulation factor in lowering the level of aggression.
3. A long-term judo training determines higher and balanced level of psychic resilience among judo athletes.
4. Results of experimentally used Karen Leppert's test suggest that there is necessity to continue, develop and analyse its further applications.

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