

The Impact of Stress on Emotional Intelligence of Successful and Unsuccessful Karate Women's

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Abstract

The present research seeks to investigate and compare the levels of Emotional Intelligence and stress among successful and unsuccessful female Karate players who competed in 2013-2014 student competitions, hosted by Islamic Azad University, Falavarjan Branch. The subjects of the research are between 18 to 25 years old and were chosen from those competing in the aforesaid competitions; ten successful and ten unsuccessful professional Karate players have been chosen based on the results of Hormonal Imbalance questionnaire and their sports reputation. In order to investigate the level of Emotional Intelligence, the Bar-On Emotional Quotient Inventory was given to the subjects 3 days prior to their matches. In order to investigate the level of stress, the salivary cortisol concentration measurement method was employed 30 minutes prior to the match, using a Demeditect ELISA kit (made in Germany) with the sensitivity level of 0.012 Nano grams per milliliter. Independent T-Test and Pearson Correlation Coefficient were employed as statistical methods for data analysis. In general, results indicated that the two groups of successful and unsuccessful Karate players have a significant difference in Psychological Flexibility subscale ($t= 0.011$), while there is no significant difference in other subscales ($t= 0.039$). Furthermore, the results indicate a significant negative correlation between Emotional Intelligence and the level of stress in both successful and unsuccessful groups ($r= -0.716$) ($r= -0.693$). Findings of this research suggest that Emotional Intelligence is an educable factor, and educating the Karate players about Emotional Intelligence can lead to lower levels of stress among them before matches.

Key words: Emotional Intelligence, Stress, Successful Karate Players, Unsuccessful Karate Players, Cortisol, Professional

Introduction

Today, in the world of sports, physical ability, tactical and specialized skills are not the only guarantor of success. Many athletes show the best performance in practice. But when competition or confrontation with competitors, media, spectators and other stressful situations have emotional reaction (Bernstein, 1997). Stress is a response to external pressures or unsuitable conditions (Atkinson, 1996). Stress affected by Hypothalamic-pituitary-adrenal, leading to an increase in cortisol (Alavian, 2013). How to cope with stress is part of the human personality and affect performance. However, many karate do not know because of the emotional complexity which what their strong characters and weaknesses. Research has shown that successful athletes tend to emotional intelligence abilities and special talents that will enable them to do great things (Tabesh, 2004). Emotional intelligence is the capacity or ability to organize emotions and feelings to motivate themselves and effectively control their relationships with others. (Goleman, 2006) So the athletes to control their emotions can enhance the performance of the components of emotional intelligence as a successful strategy to use. Baro introduced concept of emotional intelligence in five areas: intrapersonal intelligence, between-personal intelligence, adaptability, stress management and general mood and fifteen subscale. (Baroparker, 2000). Arksn et al (2007) studies showed that teaching emotional intelligence components, has a decisive role in reducing the stress individuals and increases their adaptation to the environment. If karate in the face of situations that has emotional reaction don't have coping efficient strategies And have little ability to control and manage the emotions of themselves and others, cause unpleasant emotions and will drop pleasant emotions. This mode also increases

karate aggression, stress and drop psychological well-being. Stress, as the internal state can be due to physical demands and environmental or social status. The potentially harmful situations evaluated uncontrollable or beyond our potential compatibility Stress due to the mix of pleasant and unpleasant emotions associated with emotional intelligence and can be influence to the karate performance level in the field of sport world. Such communication is implied in Theory and Research (Ramezani and Abdullahi, 2006). Hence the aim of researcher in this study is determine relation between emotional intelligence and stress. Are successful karate endure high stress in competition situation? Are Sports history affected by stress? Are different emotional intelligence of successful and unsuccessful karate people? Do people with low emotional intelligence experience more stress in the match? After all, the purpose of this study is the effects of emotional intelligence on stress of successful and unsuccessful women's karate

Research Methodology

Type of research is a descriptive correlational study based on data collection and causative comparison and research is applied research. This research included 20 female karate in two groups of 10 people (successful and unsuccessful Karate) And the range of age between 18 to 25 years within the academic team in Azad University competitions in Felavarjan. This assessment was based on the unique history of regular exercise and participate in competition and healthy physical and natural menstrual period (28 days) And don't have menstrual and fro menstrual pain. And don't have hormonal disorders and diseases that maybe affect study variables. And report on readiness to participate in the research process and with informed of consent to participate in research studies and various stages signed Testimonial. To measure emotional use standard questionnaire and Salivary cortisol concentrations were used for stress And Demeditect ELISA kit was used to measure the concentration of salivary cortisol. To gather information about personal information and split successful and unsuccessful professional people was used researcher made questionnaire that Contains personal information And 5 question used to determine the number of matches that have participated in the course of his career and The number of matches in which they have lost and Sports history was used and the number of medals. To sampling the subjects rinsed their mouths and after a few moments, four mL of not stimulate saliva poured into the test tubes. The samples collected were kept frozen at a temperature of 20 ° C. After collecting full and transferring saliva samples to the laboratory, After collecting full and transferring saliva samples to the laboratory To measure the concentration of salivary samples were analyzed at the laboratory to become frozen. Then, by using centrifuges deposited mucosa in samples. Then measure cortisol concentration of the liquid in the upper part of the pipe. To avoid the influence of environmental factors all saliva samples tested under identical conditions (environmental, laboratory, time). To determine salivary cortisol used Demeditect ELISA kit that concentration by Germany with 0.012 Nano-grams per milliliter sensitivity. Also measure all processes in the laboratory done with hormonal and laboratory specialists. attend in the team's camp Three days before the competition And distributed forms of hormonal disorders and drug questions about history, sports history of illness and menstruation between karate then collected after completion. Then, according to information received from question select 10 successful and unsuccessful professional karate that at least 3 years activity in karate, select as sample. Then emotional intelligence questionnaire and consent form was completed by karate. In the Competition day, karate were justified for sampling to measure the stress of competition. In this case, first wash their mouths And after a few moments 3 mL of saliva that not stimulated, throw into the collection tube. Then participants delivered saliva sample 30 minutes before the start of the competition and Collected samples were immediately frozen And was transferred to the laboratory. The assumption of normality of the data was evaluated using a Shapiro It was clear that all the data are normally distributed. To evaluate the research hypothesis used Pearson correlation coefficient and independent t-test ($\alpha \geq P$).

Results

Characteristics of subjects

Some of the features subjects including height, weight, age, body mass index (BMI) and the amount of regular exercise were measured. These features are presented in Table 1.

Table 1 .mean and standard deviation the characteristics of subjects

Groups	Height	Weight	Age	Body mass index	Regular exercise
successful Karate	5.164±6.6	2.63±6.5	6.22±4.3	3.22±5.2	6.5±3.2
unsuccessful Karate	4.163±8.5	1.52±7.4	1.21±2.3	3.24±78.1	3.4±8.3

The first hypothesis (Ho): there is no relationship between emotional intelligence and stress levels in successful Karate women. The relationship between emotional intelligence and salivary cortisol levels of successful karate women was evaluated by Pearson test results in Table 2 has been proposed.

Table2.relationship between emotional intelligence and salivary cortisol levels of successful karate women

Group	Variable	Mean and standard deviation	Correlation coefficient	R ²	Sig
successful Karate	emotional intelligence	331.10±15.56	-0.693	48.02	0.026
	salivary cortisol	3.85±1.3			

Thus, the null hypothesis is rejected and the other hypothesis accepted. In other words there is inverse significant relationship between emotional intelligence and salivary cortisol between successful karate women. The second hypothesis (Ho): there is no relationship between emotional intelligence and stress levels in unsuccessful Karate women. The relationship between emotional intelligence and salivary cortisol levels of unsuccessful women's karate was evaluated by Pearson test results in Table 3 has been proposed.

Table3. relationship between emotional intelligence and salivary cortisol levels of unsuccessful karate women

Group	Variable	Mean and standard deviation	Correlation coefficient	R ²	Sig
successful Karate	emotional intelligence	301.40±39.19	-0.716	51.26	0.02
	salivary cortisol	4.93±.089			

Thus, the null hypothesis is rejected and the other hypothesis accepted. In other words there is inverse significant relationship between emotional intelligence and salivary cortisol between unsuccessful karate women. The third hypotheses (Ho): there is no significant difference between emotional intelligence in successful and unsuccessful karate women.

Table 4. T test results of a comparison between the overall emotional intelligence in both successful and unsuccessful karate.

Group	Mean and standard deviation	Correlation coefficient	R ²	Sig
successful Karate	15/56±331/10	18	2/22	0/039
unsuccessful Karate	/39/29±301/40			

Results of Table 4 shows there is significant difference between emotional intelligence of both successful and unsuccessful Karate (P=0.039). The null hypothesis is rejected And opposite hypothesis accepted. In other words, there is significant difference between emotional intelligence of successful and unsuccessful karate groups.

The forth hypothesis (Ho): there is no significant difference stress in successful and unsuccessful karate women.

Table5. T test results of a comparison between the stress in both successful and unsuccessful karate.

group	Mean and standard deviation	correlation coefficient	R ²	Sig
successful Karate	1/30±3/85	18	-2/178	0/043
unsuccessful Karate	0/89±4/93			

Results of Table 5 shows there is significant difference between stress of both successful and unsuccessful Karate (P=0.043). The null hypothesis is rejected and opposite hypothesis accepted. In other words, there is significant difference between stress of successful and unsuccessful karate groups.

Conclusion

The results showed that emotional intelligence is related to stress and there is an inverse relation between them, then can be reduced stress by increasing the levels of emotional intelligence. This result Exist for both successful and unsuccessful Karate. Karate professionals in this study as they are mentioned have a long history. Due to the presence of national and international competitions they have great courage in their actions, in the various tournament, they are optimistic to achieve results, because a lot of experience they aware their emotions in competition. In many cases seen they speak themselves in their competition or training and for some doing better feedback themselves. Or psychologically, try to have a positive energy by saying sentences like: try, you can, precision, again. And thus try to control and manage their emotions (Moradi and Namazi, 2010). Williams et al., 2010, studied the relationship between emotional intelligence and anxiety before the competition athletes in the sport Taiwan National University. In this study emotional intelligence questionnaire distribute between 111 track and field athletes. The results showed that participants with lower emotional intelligence and cognitive anxiety tougher competition than those who reported higher emotional intelligence. Measures of emotional intelligence such as stress management, intrapersonal and interpersonal emotional intelligence was associated with anxiety before the competition. Therefore the present study In the Emotional linked to Goleman (1995), M Lin et al., Ali M, Williams et al. People who have more experience In the karate can better define their failures and successes. Success for them is not the only place finish, but also learn how to implement some of these techniques can be considered as a success. They pursue certain goals, also in the event of failure also try to consider all factors and seek to resolve them. So it can better control their stress before the

competition. In fact, those with higher work experience to their wins and losses look a divergent view. This type of thinking creates more interest in the hope of long-term planning and design to meet their own problems. They look realistic to their performance and do not expect won Despite the shortcomings to their competitors, So they do sufficient effort to removing their defects. This people may be late to have step on platforms Championship But when they won, Long time to come down from the platforms. Hosseini Nia (2007) investigate the relationship between emotional intelligence and coping with stress styles in athletes. The result show there is no significant relationship between emotional intelligence and its components (self-control, empathy, self-awareness, self-exciting and social skills) to confrontation and avoidance coping with stress styles at 95% confidence. This part of the research is not consistent with Hosseini Nia (2007) study. This may be due to differences in the use of measured tool. In Husseini nia study was used 33-part questionnaire but In the this study was used 90-part questionnaire. The difference in the field of sport could be one of the reasons is the lack of alignment. Majidi (2009) assessed The relationship between emotional intelligence and women's swimming skills. One of the The findings show there isn't significant correlation between emotional intelligence and educational level of women swimmers. This part of the research is not consistent with Majidi (2009) study. This difference may be due to differences in the of sport fields studied in this research and Majidi study. In another study Aghapour (2009) compared the emotional intelligence between athletes and non-athletes students. His study showed that the two groups are significant differences components of self-respect and happiness. That is not consistent with the results of our research. also in His research athletes and non-athletes were not significantly different In the overall emotional intelligence. That is not consistent with the results of our research too Maleki et al 2012 study on the impact of emotional intelligence training elite athletes studied aggression and stress. They show that emotional intelligence training reduces stress athletes. Nourian 2011 in the research said that teaching emotional intelligence can cope with stress and anxiety more effectively. According to the study there is a significant correlation between emotional intelligence and stress levels between successful and unsuccessful karate And can be reduce stress through training emotional intelligence components before the competition. Emotional intelligence skills are important in people's lives that improving by training and education. Strengthening and usage of emotional intelligence components in all aspects of life, including employment, education, sport and can help people to achieve goals. So far, many studies have examined the relationship between emotional intelligence and sport skills, this study show, stress have inverse impact on emotional intelligence. The average of emotional intelligence karate based on work experience, their successes and failures were significant differences. . Therefore, along with physical skills, addressed emotional skills such as stress management, emotional management, flexibility and the ability to solve the problem and these skills should be taught to younger athletes.

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