SELF-CONCEPT DIFFERENCES IN ATHLETES AND ESPORTS PLAYERS

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ABSTRACT: The aim of this research is to examine the self-concept of athletes and Esports players and to determine the relationship between these possibly different self-concepts, and how they differ between athletes and Esports players.

Exactly 67 participants were involved in the research, namely 37 athletes who play sports at the highest level in Bosnia and Herzegovina, and 30 Esports players, who compete semi-professionally or professionally, at the state or regional level. The average age of the respondents was 23 years and 4 months. Sociodemographic variables were measured by the Sociodemographic Characteristics Questionnaire, which was constructed for research purposes, while the Self Discrepancy Scale was used to examine self-concept (Kolenović-Đapo and Hasanbegović, 2002).

The obtained results suggest the existence of a statistically significant difference in self-concept between athletes and Esports players, in relation to physical ($t(65)=2.72$, $p<0.05$), emotional ($t(65)= 2.59$, $p<0.05$) and social self ($t(65)= 2.66$, $p<0.05$). In addition, it was shown that there is no statistically significant difference between athletes and Esports players, regarding cognitive (($t(65)=1.04$, $p >0.05$) and moral self ($t(65)= 0.19$, $p>0.05$). Therefore, athletes have a more positive perception of their physical, emotional, and social self, because it is possible that in interaction with the community due to active sports participation and good performances they receive a positive and supportive reaction from the environment, which further contributes to the fact that they experience and present their physical, emotional and cognitive self in a more positive way than Esports players.

Keywords: *self-concept, athletes, Esports players, self*

INTRODUCTION

It is evident that, recently, the interest of researchers in sports and Esports has increased, as well as interest in the numerous variables that are correlated with success in the mentioned areas. However, there are not enough such studies on the Esports population, especially not in our area. Therefore, this research aims to investigate the differences in self-perception between athletes and Esports players and contribute to the spread of interest and scientific knowledge about Esports, as a modern, economically powerful industry that is becoming a dominant trend in the world of sports.

SPORTS AND ESPORTS

The availability and increased use of the Internet, technology, and computers have allowed Esports to become a global sensation. The Esports market is an economically promising market, and its viewership and popularity are increasing every day. In the US, there are even competitions for playing video games at all levels of education. In our country, playing video games is mostly still a way of using free time in a fun and interesting manner. However, there are also those who spend their time playing video games at a high level, which is partially in the domain of Esports, because there are certain disagreements among authors about the very concept of Esports. Namely, some authors believe that Esport implies only a professional level of playing video games, while recently an increasing number of authors believe that Esport also includes individuals who spend time actively playing video games at a high level (Šunje and Vardo, 2022).

Esports, in literal translation, is an electronic sport, in which one participates mainly through using computers, consoles, or mobile devices, where players compete, individually or in teams of usually 2 to 10 people, with opponents sitting on the other side of the virtual world. The video games most associated with Esport are League of Legends, Dota 2, Overwatch, CS:GO, Paladins, Smite, Fortnite, PUBG, and Call of Duty (EsportSource, 2021).

All of these have a specific set of rules and require the development of muscle memory for the many moves to be made within the game, which requires years of hard training (Himmelstein, Liu, & Shapiro, 2017). However, some authors emphasize the benefits of traditional sports in improving social skills, as well as social and personal responsibility (Martín and González, 2005), and this creates and supports several stigmas about Esports, such as the fact that playing video games puts players at risk of favoring the pattern of impulsive, aggressive, and selfish behavior, and become aggressive, socially isolated, and lonely (Tejeiro et al., 2012).

In addition, video games have been shown to be associated with sleep problems, general fatigue, and various somatic difficulties (Choi et al., 2007; Griffiths, Davies, & Chappell, 2003; Griffiths, Davies, & Chappell, 2004), which only affirmed the mentioned stigma. However, such a trend has been fading lately, although it still carries some weight and influences the opinion that the scientific sector has about Esports and video game players. Nevertheless, there is a strong initiative among the general public for Esports to be given the title of sports in the traditional sense, and countries such as the USA, Germany, Finland, China, South Korea, South Africa, Iceland, Russia, Denmark, and Ukraine have recognized Esports as a sport, while it has had a special category at the Asian Olympic Games (Olympics, 2021) for several years already.

Also, it should be pointed out that the biggest difference between Esports and sports is actually in physical activity. However, as chess and poker

are already being classified as sports, one of the arguments of the lucrative Esport industry is that Esport deserves to be classified as a sport as well (Esportsmention, 2019). Taking into account all of the above, it would be useful for scientific and social efforts in the future to be focused on promoting the interesting and useful practice of Esports, both in the world and in our country.

Self-concept

Self-concept or self-awareness is a central concept in all theories of the self. Self-concept is defined as the totality of experiences that an individual has about himself and his identity, and includes the perception of abilities, achievements, personality characteristics, and behavior, as well as their evaluation in that context (Petz, 2005).

Therefore, it can be said that self-concept is multidimensional, composed of different characteristics, abilities, personal qualities, and roles (Fox, 2000). Thus, the self-concept is descriptive and evaluative, based on an ideal, personal standard or comparison with others because it refers to the way an individual perceives, evaluates, and values himself. The result of that process is the subjective experience of one's self, as a complete and organized mental image of oneself (Lacković-Grgin, 1994), which essentially represents a generalized experience of oneself in different areas of life and work (Kuburić, 2009). Nevertheless, the forming of the self is placed in the context of social interaction because it is ultimately a social construction (Harter, 2006).

Thus, according to the foundations of social interactionism, the basis for forming a self-concept is the feedback a person receives from significant others, and this idea of self-concept has three components, namely: the idea of how others see us, the idea of how others they evaluate what they see, and some emotion related to those performances, such as pride or humiliation, satisfaction or dissatisfaction (Krstić, 2008).

There are several models of self-concept, but one of the most dominant is the multidimensional, hierarchical model of Shavelson, Hubner, and Staton, published in 1976, according to which global self-esteem appears at the top of the hierarchy. At the next level is academic and non-academic self-concept, which is further divided. The academic self-concept is divided into subject-specific concepts, while the non-academic self-concept is divided into social, emotional, and physical self-concepts (Lacković - Grgin, 1994).

Sports and physical self-concept

The physical self has a special importance in sports participation and performance in the world of sports. Namely, it has been shown that physical constitution and the physical self play a key role in the construction of identity, and are a central component in the development of the identity of professional athletes (Loland, 1999). Accordingly, there is a strong emphasis on self-perception in the physical domain and a tendency to derive much of the personal value from physical activity and athletic performance (Brewer, 1993).

Supporting the salience of physical self-concept in athletes, Marsh, Perry, Horsley, and Roche (1995) found that athletes had a more positive physical self-image and global self-esteem than non-athletes. They also found that among athletes of different levels, professional athletes show the most positive levels of physical self-concept and global self-esteem.

Therefore, physical constitution, stamina, and strength represent a central role in the construction of an athlete's identity (Loland, 1999), and are created and maintained around "having a young, physically fit, and functional body" (Phoenix, Faulkner, & Sparkes, 2005). However, body image, the self, and self-esteem are often influenced by both physical capacities and social perceptions related to body ideals (Stephen and Billard, 2003).

Previous research on self-concept in sports mainly shows that the physical self is positively correlated with participation in sports activities, where it serves as a motivator for participation in activities, which then in turn positively affects the physical self (Ouyang, Wang, Zhang, Peng, Song and Luo, 2020; Brudzynski and Ebben, 2010). Also, regular physical activity, the like we encounter in sports activities, positively affects the development of social self and sociability in general (Kirkcaldy, Shephard, & Siefen, 2002). Therefore, all of the above points to the need to study the differences between athletes and Esports players, in order to have as much information as possible regarding the differences between sports participants in the traditional sense of the word and participants who play video games at a high level and belong to the economically powerful Esports industry.

Also, by reviewing the literature and the results of available research, it seems that this research is the only one that investigates the mentioned topic, not only regionally, but even broader. Therefore, it seems that it is very important to answer the question of whether there is a difference in certain facets of self-concept, such as physical, emotional, social, cognitive, and moral self-concept, between athletes and esports players, which can increase scientific interest in this area and initiate new research.

GOALS AND HYPOTHESES OF THE RESEARCH

The aim of this research is to examine the self-concept of athletes and Esports players and to determine the relationship between these different self-concepts, andhow they differ between athletes and Esports players. In accordance with the stated goal, the following research hypotheses were formulated:

H1. There is a statistically significant difference in the self-concept between athletes and Esports players with regard to physical, emotional, and social self, as factors of self-concept.

H2. There is no statistically significant difference in the self-concept between athletes and Esports players with regard to cognitive and moral self, as factors of self-concept.

METHOD

The research is empirical and quantitative, and the survey method was used on Esports players and athletes who are actively engaged in sports at the highest level in Bosnia and Herzegovina.

Sample

The sample of this research is represented by participants collected in different ways, through the organization "Tiltproof.gg" and the Esports Association of Bosnia and Herzegovina, as well as through cooperation with the Futsal club "Mostar SG Staklorad", RK Vogošća, KK Sloboda and FK Velež. Exactly 67 answers were collected, namely, 37 athletes who play sports at the highest level in Bosnia and Herzegovina, and 30 participants who belong to the category of Esports players, who play video games semi-professionally or professionally, at the state or regional level. Accordingly, it is assumed that this intentional sample due to the specificity of the topic and area of research, is still sufficient to achieve the research goal.

The average age of the participants was 23 years and 4 months, and the age range is 14±38. Therefore, younger examinees are also included in our sample due to the fact that esports players start participating in competitions as early as in adolescency, and quickly achieve great success.

RESEARCH PROCEDURE

The examination is of the survey type, and the surveying of participants was carried out by the examiner. After the standard instructions explaining the purpose of the research, with a note that anonymity is guaranteed, and that participation in the research is voluntary, the respondents individually proceeded to fill out the survey questionnaires.

MEASURING INSTRUMENTS

The research first collected basic socio-demographic data (age, monthly income, number of family members, and satisfaction with socioeconomic status), and for this purpose, a Questionnaire of socio-demographic characteristics was constructed.

Self-concept was assessed with the Self Discrepancy Scale (SD scale), which was constructed with the aim of examining the difference between the image that an individual has of his real self and his ideal self (SD scale, Kolenović-Đapo & Hasanbegović, 2002., according to Repišta, 2013). The scale consists of 30 self-descriptors and their opposites, and the participant's task is to evaluate how certain adjectives describe his real self on a seven-point scale. Self-descriptors with which students most often described themselves were included in the self-discrepancy assessment scale. From the potential self-descriptors (150 traits), a group of 20 evaluators had the task of classifying the self-descriptors into five different categories related to physical, emotional, social, cognitive, and moral self. According to the frequency of assessments of terms belonging to certain categories, six terms were selected for each category, and a group of 30 adjectives was obtained to which their opposites were added.

The alpha reliability coefficient in the research conducted by Hasanbegović (2004) on a sample of high school students was α=0.79, while this coefficient in our research is α=0.53, which represents satisfactory reliability.

STATISTICAL ANALYSIS

The data collected in this research were processed using the program package IBM SPSS Statistics 23. Descriptive statistical measures were calculated for the self-concept variable: minimum and maximum value, arithmetic mean (M), and standard deviation (SD), while reliability measures (internal consistency) were expressed by Cronbach's alpha coefficient. In addition, the existence of differences in self-concept and the facets that determine it (physical, emotional, social, cognitive, and moral self) was examined by conducting a t-test for small independent samples.

RESULTS

According to the basic indicators of descriptive statistics for the self-concept variable from Table 1, it can be seen that the obtained results ranged from 8 to 42, with an arithmetic mean of 31.62 (physical self), 31.41 (emotional self), 30.85 (social self), and 33.47 (cognitive self) and 34.61 (moral self).

Table 1. Descriptive statistics for physical, emotional, social, cognitive, and moral self.

Self	Min	Max	M	SD	Sk.	Curt.
Physical self	12	42	31.62	6.98	-.593	-.058
Emotional self	18	42	31.41	5.53	-.375	-.246
Social self	21	41	30.85	4.58	.047	-.825
Cognitive self	15	42	33.47	5.70	-.837	.763
Moral self	8	42	34.61	7.00	-1.68	3.33

In order to answer the research hypotheses, the differences between athletes and eSports players were tested, in regard to the physical, emotional, and social self. The obtained results are presented in the following table.

Table 2. Differences in self-concept in regard to the physical, emotional and social self.

Self	Sports particip.	N	M	t	df	p
Physical self	Yes	40	33.45	2.723	65	.008
	No	27	28.92	2.997	64	.004
Emotional self	Yes	40	32.80	2.595	65	.012
	No	27	29.37	2.855	64.03	.006
Social self	Yes	40	32.02	2.666	65	.010
	No	27	29.11	2.828	64.48	.006

It has been shown that there is a statistically significant difference between athletes and Esports athletes in relation to physical (t(65)=2.72, p<0.05), emotional (t(65)= 2.59, p<0.05) and social self (t(65)= 2.66, p<0.05). Therefore, in this research, athletes achieve higher results on the components of physical, emotional and social self, compared to esporters, and the first research hypothesis is confirmed.

In the following, in order to verify the second hypothesis of this research, we tested the differences between athletes and esports players, in regard to cognitive and moral self. The obtained results can be seen in Table 3.

Table 3. Differences in self-concept in regard to the cognitive and moral self.

Self	Sports particip.	N	M	t	df	p
Cognitive self	Yes	40	34.07	1.04	65	.300
	No	27	32.59	1.11	64.9	.267
Moral self	Yes	40	34.75	.195	65	.846
	No	27	34.40	.220	60.2	.827

From the above, it is evident that there is no statistically significant difference between athletes and Esports players in relation to cognitive ((t(65)=1.04, p >0.05) and moral self (t(65)= 0.19, p>0.05). Therefore, we can conclude that the second research hypothesis is also confirmed, because athletes and Esports players do not achieve significantly different results on the components of cognitive and moral self.

DISCUSSION

In this research, we attempted to examine the differences in self-concept and certain facets of self-concept, such as physical, emotional, social, cognitive, and moral self, between athletes and Esports players.

Based on the obtained results, it can be concluded that there is a statistically significant difference between athletes and Esports athletes in relation to physical self (t(65)=2.72, p<0.05), which can be supported by some earlier theoretical knowledge and research results (Loland, 1999; Brewer, 1993; Marsh, Perry, Horsley, & Roche, 1995; Phoenix, Faulkner, & Sparkes). In addition, Ouyang et al. (2020) found that the physical self is positively correlated with participation in sports activities, where it serves as a motivator for participation in those activities, and then has a returning positive effect on the physical self (Brudzynski and Ebben, 2010).

Also, there is a statistically significant difference between athletes and Esports players in relation to the emotional (t(65)= 2.59, p<0.05) and social self (t(65)= 2.66, p<0.05), which is in accordance with the research conducted in our region, according to which athletes show statistically significantly lower levels of neuroticism, and higher levels of extraversion than Esports players (Šunje and Vardo, 2022). Namely, athletes experience less unpleasant and disturbing emotions and have a lower tendency towards agitation in thoughts and actions. On the other hand, they are characterized by greater emotional stability and calmness compared to Esports players, and in this research, it was shown that they also have a more positive perception of the emotional self.

In addition, athletes prefer large gatherings and show a greater desire and need to establish relationships with a larger number of people and receive greater social attention than Esports players, and it was shown that they also have a more positive perception of the social self. This is supported by the research conducted by Kirkcaldy, Shephard, and Siefen (2002) who found that regular physical activity has a positive effect on the development of social self and sociability. Thus, the first research hypothesis was confirmed.

The obtained results also indicate that there is no statistically significant difference between athletes and Esports players, in relation to cognitive ((t(65)=1.04, p >0.05) and moral self (t(65)= 0.19, p>0.05), which is expected. Namely, the skillful performance of athletes and Esports players, which we admire and enjoy watching, would not be possible without dedicated practice and extensive training. As a result of involvement in regular training and preparation, both athletes and Esports players gain certain cognitive skills (Glavaš, 2017). Some of them are fundamental, and some are more specific, but both athletes and esports players are equally aware that they are necessary for their success, and they work with additional dedication on improving them (working memory capacity, conscious control of attention, etc.), in order to achieve the best possible results in their field. Therefore, in this research, it was shown that there is no significant difference between these two groups, in regard to cognitive self.

In addition, playing sports and esports, which is a specific type of sport, includes the expression of moral values and moral behavior, which gradually shape the moral consciousness of the athlete, as well as the presence of general morality (fair play), which implies the development of correct relations between sports rivals, respect for the rules and decisions, as well as harmonizing personal needs and interests with the needs and interests of the team (Bajraktarević, 2008). In accordance with this, the obtained results show that there is no statistically significant difference between athletes and Esports players, in regard to their moral self, which is why the second hypothesis of this research is also confirmed.

Therefore, athletes have a more positive perception of their physical, emotional, and social self, because it is possible that in the interaction with the audience, the coach, and each other, they receive a positive and supportive reaction from the environment. Therefore, athletes experience their physical, emotional, and social self and present it to their community in a more positive way than esports players, who participate in sports by playing video games via computers, consoles, or mobile devices, which is why they are somewhat isolated and at the risk of being lonely, without having too many opportunities for real social interaction and genuine interpersonal communication in that virtual world.

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