



AN EMPIRICAL STUDY ON THE RELATIONSHIP BETWEEN SPORADIC ACHIEVEMENT LEVELS AND ATHLETE IDENTITY PERCEPTION LEVELS OF STRESSORS

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Abstract:

The aim of this paper is to investigate the relationship between athletes' perceptions of stress and athletic identity perceptions. A total of 240 licensed athletes –at least for two years- voluntarily participate the study by random sampling. In order to collect data, Athletic Identity Scale adapted from Öztürk and Koca (2013), which is originally developed by Brewer and Cornelius (2001), and Stress Coping Styles Scale adapted from Şahin and Durak (1995) are used. To analyze the data; frequency correlation and one-way ANOVA tests are employed. The findings show that there is a moderate level significant relationship between the stress coping and the athletic identity perceptions. Moreover the results indicate that gender is strongly correlated with athletic identity while age is positively correlated with stress coping. Furthermore the correlation analysis reveals positive associations between sports history, athletic identity and stress coping as a result, there is a positive relationship between athlete identity perception levels and stress coping. We also see that there is a significant relationship between the age of the athletes and the athlete identity perception and the level of coping with stress.

Keywords: stress, athletic identity, stress coping

1. Introduction

Even though, the extant literature doesn't provide a consensus regarding what identity exactly is, the identity can be described as "*all the mental, emotional, social, and physical aspects of the individual that distinguish the individual from others, both innate and later*" based on wide held definitions (Yelboğa, 2006). According to this definition, identity seems to be closely related to development theories as well as other fields related to development (Özdemir et al., 2012).

The identity of the athlete is related to the athlete role of the individual. Athletes engaging the sports activities identify themselves with sports as part of their self-

identity; and become privileged through those sports activities (Brewer and Cornelius, 2001). Performance athletes assimilating sports as a vital part of life, begin to form identities in society. Athletic identity is associated with the sports activity that the athletes do. Beside the identity development, the athletic characteristics also develop as well. These characteristics involve abilities such as resistance to difficulties and as quick decision making (Horton and Mack, 2000). The athletic identity is the extent to which the athlete perceives himself as an athlete in addition to the other self-perception facets. Brewer and Cornelius (2001) claim that athlete identities rise when athletes' performance levels increase. As the athletic identity develops and athletic performance increases; different emotional states will emerge in addition to the personal evaluation (Can and Kaçay, 2016, Koca et al., 2017). It is important that the institutions that educate teachers in the discipline of physical education and sport sciences should be able to construct such a way that this process student will gain positive attitudes towards the profession during the period of undergraduate education or before the license period (Çetinkaya et al, 2018)

Stress is the sum of all conditions resulting from individual himself or the external environment that causes physical or mental tensions, fear or anxiety (Aytaç, 2009). Stress as a term, which takes its roots from the Latin word "estricia", means resistance emerged in human body against the decay of balance by various reasons. Stress has become an integral part of today's life. Modern people experience stress regularly, even they are not aware of that. Everything that creates differences -even good or bad- is more or less stressful (Güçlü, 2001).

In addition to external stressors, routine physiological developments of human life create stress either (Wang et al., 2004). The important thing here is the meaning and the interpretations that are devoted to those internal and external stressors. Because the level of perceived stress is determined by those meaning and the interpretations towards the stressors (Aydın and İmamoğlu, 2001).

The athletes are experiencing stressful events during training and competition. This study aims to examine the relationships between athletic identity perceptions and stress coping styles during a stressful event. Furthermore, this study also aims to reveal how the demographic variables are related to stress coping and athletic identity.

2. Material and Methods

A total of 240 licensed athletes –at least for two years- voluntarily participate the study by random sampling. All of the participants are university students.

The latent constructs are assessed using multi-item measures on a five-point Likert scale ranging from 'strongly disagree' (1) to 'strongly agree' (5) from prior studies. Short explanations of each measure are as follows. In order to measure athletic identity, athletic identity scale composed of seven items adapted from Öztürk and Koca (2013), which is originally developed by Brewer and Cornelius (2001). To measure stress coping styles this paper use stress coping styles scale developed by Şahin and Durak

(1995). This scale, originally for evaluating the psychological stress symptoms of university involves 30 items.

SPSS 20.0 program is used for analyzing the data. Frequency analysis is employed to assess the descriptive statistics of participants. Kolmogorov-Smirnov test is performed to check the normality of distribution. The results show that data is proper for parametric tests as it the scenes' and kurtosis values extend between ± 2 to see the correlation amongst the variables this paper made use of Pearson correlation utilized One-Way ANOVA test are to see the significant differences among the different demographic groups.

3. Results and Discussion

Table 1: Participants' age and sports history averages

| Variable | n | Minimum | Maximum | Mean | Std. |
|----------------|-----|---------|---------|-------|------|
| Age | 240 | 19,00 | 28,00 | 20,83 | 1,65 |
| Sports History | 240 | 2,00 | 16,00 | 9,86 | 3,93 |

Table 1 shows that the average age of the participant athletes is 20.83 ± 1.65 years and the average sports history is 9.86 ± 3.93 years.

Table 2: Distribution based on gender

| Variable | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------|-----------|---------|---------------|--------------------|
| Gender | Female | 86 | 35,0 | 35,0 |
| | Male | 154 | 65,0 | 65,0 |
| Total | 240 | 100,0 | 100,0 | 100,0 |

Table 2 shows that 154 (65%) of the participant athletes are male and 86 (35%) are female.

Table 3: Distribution based on branches

| Variable | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------|-------------------|---------|---------------|--------------------|
| Branch | Team sports | 128 | 53,3 | 53,3 |
| | Individual sports | 112 | 46,7 | 46,7 |
| Total | 240 | 100,0 | 100,0 | 100,0 |

Table 3 shows that 128 (53,3%) of the participant athletes engage in team sports while 112 (46,7%) engage individual sports.

Table 4: Correlation results for stress coping and sports identity

| Variable | Athletic Identity | |
|---------------|-------------------|----------|
| Stress coping | r | ,557(**) |
| | p | ,000 |
| | n | 240 |

According to the correlation results (shown in table 4) there is a moderate level significant relationship ($r = ,557$) between the stress coping and the athletic identity perceptions.

Table 5: Correlation results for stress coping, athletic identity and gender

| Variables | | Gender |
|--------------------------|---|-----------------|
| Stress coping | r | ,421(**) |
| | p | ,021 |
| | n | 240 |
| Athletic identity | r | ,689(**) |
| | p | ,235 |
| | n | 240 |

According to the correlation results (shown in table 5) there is a positive strong association between the athletic identity and gender ($r = ,689$ **) while there is a moderate positive relationship between stress coping and gender ($r = ,421$ **). Thus, male athletes have a stronger athletic identity whereas they are more likely to cope with stress than the female athletes.

Table 6: Correlation results for stress coping, athletic identity and age

| Variables | | Age |
|--------------------------|---|----------------|
| Stress coping | r | -,013 |
| | p | ,847 |
| | n | 240 |
| Athletic identity | r | ,427(*) |
| | p | ,050 |
| | n | 240 |

According to the correlation results (shown in table 6) there is a positive moderate association between athletic identity and age ($r = ,427$ **). However, the results provide empirical evidence in support of a significant correlation between age and stress coping

Table 7: Correlation results for stress coping, athletic identity and sports year

| Variables | | Sports Year |
|--------------------------|---|------------------|
| Stress coping | r | ,525 (**) |
| | p | ,025 |
| | n | 240 |
| Athletic identity | r | ,712(**) |
| | p | ,007 |
| | n | 240 |

According to the correlation results (shown in table 5) there is a positive moderate association between the athletic identity and sports year ($r = ,525$ **) while there is a strong positive relationship between stress coping and gender ($r = ,712$ **).

Table 8: ANOVA results for stress coping, athletic identity based on sports year

| Variables | | n | Mean ± Ss | F | p | Post Hoc |
|--------------------------|----------------------------|-----|-------------|-------|------|------------|
| Stress coping | 1-5 years ¹ | 107 | 81,59±14,26 | ,254 | ,859 | |
| | 6-10 years ² | 76 | 80,30±18,72 | | | |
| | 10-15 years ³ | 41 | 81,95±18,44 | | | |
| | Over 15 years ⁴ | 16 | 83,81±16,18 | | | |
| Athletic identity | 1-5 years ¹ | 107 | 30,20±5,65 | 3,924 | ,009 | 3-4 |
| | 6-10 years ² | 76 | 30,98±5,23 | | | |
| | 10-15 years ³ | 41 | 28,41±8,06 | | | |
| | Over 15 years ⁴ | 16 | 30,40±5,98 | | | |

ANOVA results shows that there is no statistically significant difference amongst stress coping levels of the participant athletes based on sports history. However we find out that athletic identity perceptions significantly differ due to the sports history, ($p > 0.05$). a statistically significant difference between the and the sport history ($p > 0.05$). Those statistically difference is between the athlete groups of 6-10 years sports history and over 15 years.

4. Conclusion

This paper aims to provide an insight towards the relationship between athletic identity and stress coping, based on theoretical and empirical efforts. Moreover it also tries the show the reflections of demographic variables (e.g. gender, age and sports history) on athletic identity and stress coping. The findings can be summarized as below:

The results show that the average age of the participating athletes is $20,83 \pm 1,65$ years and the sport history is $9,86 \pm 3,93$ years. The 154 (65%) of the participant athletes are male and 86 (35%) are female; 128 (53,3%) of the participant athletes engage in team sports while 112 (46,7%) engage individual sports. In addition, the findings reveal there is significant relationship between the stress coping and the athletic identity perceptions, addressing the importance of athletic identity formation on stress coping mechanism.

Regarding the gender, the correlation analysis show that there is a positive strong association between the athletic identity and gender; while there is a moderate positive relationship between stress coping and gender. Male athletes have a stronger athletic identity whereas they are more likely to cope with stress than the female athletes. Thus, gender arises as an important determinant of sports identity and stress coping.

Moreover, our results reveal that age is related to athletic identity. As the athletes get older; they develop stronger internal commitment to the sports which leads them to present a stronger athletic identity However, the results provide empirical evidence in support of a significant correlation between age and stress coping

Finally, the ANOVA analyses address that athletic identity perceptions differ due to the sports history. As the sports history go beyonds a threshold level (e.g. 10-15

years); the increase in sport history results with developing higher levels of sports identity surprisingly, there is no significant difference between the athletes' coping with stress and the sport history.

The review of extant literature indicates that engaging sports activities lead people to show lesser levels of depressive attitudes. The athletes are expected to have outward-oriented, open-minded, compatible and self-disciplined personality structures. As a matter of fact, the literature is abound of studies claiming that engaging in sports activities enable individuals to develop both psychologically and socially. Individuals who are engaged in team or individual sports, are strong willed, self-confident and have better communication skills; so they can easily cope with stressful situations (Dishman et al., 2006; Dimeo et al., 2001; De Moor et al., 2006).

Since student athletes experience many problems (Deniz and Yilmaz, 2006), they can choose and develop different methods and mechanisms for stress coping. Similar studies conducted on students athletes, support the idea that students have different approaches and mechanisms to cope with stress (Temel et al., 2007). Based on the fact that athletes typically use self-confident approach whereas they least employ a submissive approach; we can come to a conclusion that athletes follow a planned path to cope with stress. They actively, rationally and consciously make decisions in order to cope with stress (Tekin, 2009). In addition, coping with stress with a self-confident approach also reveals that those students have a good mental health (Otrar et al., 2002). Athletes with high self-confidence are expected to be better at coping with stress.

According to the gender, it is stated that in stress-coping, male athlete students are better than females (Eraslan, 2005). The existing literature, have contradictory results regarding the relationship between gender and stress coping. For instance Tekin (2009) find no significant difference between male and female stress relief styles. However there are also studies that support significant differences in favor of male students in stress coping. For example, Otrar et al. (2002) argue that male students use more self-confident, submissive and optimistic approach strategies than female students

Athletic identity perception with it reflections on different emotional states has been subject to many studies. Athletic identity perceptions of individuals actively engaging sports activities have been found to influence different emotional states positively (Nagata, 2014). A study conducted on tennis and badminton athletes - individual sports- results with high level of athletic identity perception. They also report that the motivation of tennis athletes for success is high (Yanar et al., 2017). Another study on disabled volleyball players addresses a positive relationship between the athlete identity perceptions of disabled volleyball players and life satisfaction (Wiśniowska et al., 2012). In addition, Proios (2012) finds a positive relationship between athletic identity perceptions and goal achievement on gymnastics athletes

In studies investigating the relationship between athletic identity perception and gender; individuals who engage sports activities at both elite and recreational level (Lamont-Mills and Christensen, 2006), undergraduate students in physical education and sports (Proios et al., 2012), high school students (Wiechman and Williams, 1997)

and British and Malaysian national team athletes (Matheson et al., 1994) have examined. All those given researches provide empirical evidence in support of the stronger athletic identities are associated with male athletes compared to female ones. (Çetinkaya, 2010; Wiechman ve Williams, 1997; Brewer ve ark., 1993). Those results are similar to our findings. However, there are also some other studies that find no statistical difference for athletic identity between males and females (Çetinkaya, 2010; Wiechman and Williams, 1997, Brewer et al., 1993).

As a result, we can consider that the athletes will be better at stress coping because of the experiences they gain during training and competition. In other words, the athletes who have a good sense of athletic identity may perform better in stress coping. Moreover, we can conclude that males' athletic identity perceptions are higher and they are better in stress coping than the female athletes. A significant increase in athletic identity perceptions is observed as athletes get older. However, the level of stress coping doesn't seem to be related with age. Finally longer sports history in years may lead more emotional experiences and challenges which in turn results with a stronger athletic identity.

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