Effects of personality traits on goal commitment in student wrestlers in high school and university education

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ABSTRACT

The purpose of this study is to investigate the effect of personality traits on goal commitment in student wrestlers in high school and university education. The universe of the research is elite Greco-Roman and Free-Style student wrestlers who are studying in high school and university education. The sample group consists of 338 student athletes, who were selected among these student wrestlers with the convenience-sampling method. As data collection tools, "Personal information form" created by the researcher; the Turkish Big Five Inventory developed by John et al. (1991) and adapted to Turkish by Evinç (2004); the scale of "Goal Commitment" prepared by Klein et al. (2001) with the validity and reliability performed by Şenel and Yıldız (2016) were used in the research. SPSS 20 package program was used in the statistical analysis of the data. Descriptive statistics, Pearson correlation analysis and simple linear regression analysis were used. As a result of the analyses, the goal commitment points; moderately positive for openness to experience (r = .323; p < .05) and conscientiousness (r = .323; p < .05); There was a low level positive relation between goal commitment and extroversion (r = .295; p < .05) and agreeableness (r = .271; p < .05). Personality traits scores of Greco-Roman and Free-Style student wrestlers versus their goal commitment scores, sub-dimensions of openness to experience and conscientiousness were significant predictors of goal commitment in student athletes, and explained 14% of the total variance which has been identified. Similar results were also found in Greco-Roman (11%) and Free-Style (15%) wrestlers.

Keywords: Personality traits, goal commitment, student athletes, wrestlers.

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INTRODUCTION

Educational and athletic goals are the similar goals that students pursue when choosing program or sport of their career. Educational and athletic success might be closely related to the personality traits in education and sports world. Students’ personal traits, hopes, motivations and goals are often connected with degree success.

Some students in high schools and universities who are willing to be active in sports choose wrestling. Wrestling is one of the oldest combat sports in history, where both psychological and physiological competencies such as anaerobic power, maximal strength and strength endurance are required at the highest level, and technical ability has a distinctive feature. Wrestlers try to make superiority over each other by using technical skills, strength, and intelligence in accordance with the rules (Aslan et al., 2013). Personality traits are thought to be relevant in wrestlers’ superiority over each other as well as in their success in education. Many articles have been written on the concept and theories of personality in education and sports by researchers from different disciplines. This concept has a variety of scope that has been discussed for many years and is associated with virtually most of the issues in the literature. The concept of personality, as in many different fields of science, draws attention as an important research topic in the field of sports sciences, which can mobilize the masses. The main factor causing this consideration is the desire to establish a link between personality and performance.
The concept of personality, whose importance was constantly emphasized without an agreed common definition by Freud, Allport, Eysenck, Rogers, who are personality psychologists and major personality theorists such as Mayer (1998), McAdams and Emmons (1995), can be defined as “consistent behavior patterns and in-person processes resulting from the individual” (Burger, 2016). While, Zel (2011) states that personality can be seen as the observable aspect of individuals’ habits and characteristics reflected in their behavior, Sankabak (2016) stated that personality may have an aspect that can change and develop with the experiences learned throughout our life, and that it may be affected by external and different events.

There are many different opinions in measuring personality as well as defining it. The five-factor personality model appears as a model used by many researchers to measure personality. McCrae and Costa (1989) explain why the five-factor personality model is used more widely in personality research; the suitability for the studies performed, the continuity of the measured features, having based on biological foundations, being applicable in different cultures, easy to use and evaluate. Factors such as extroversion, agreeableness, conscientiousness, neuroticism and openness to experience in the five-factor personality model can explain the aspects that affect the athletes from the selection processes to adaptation in the training environment, from the competition to the moment after the competition (Furnham, 1990; Allen and Laborde, 2014; Sarıkabak, 2016; Habib et al., 2020).

As in our study, it can be seen that the concept and theories of personality were given importance in many researches about athletes (Newcombe and Boyle, 1995; Erdoğan and Kocaekşi, 2015; Piepiora and Petecka, 2020). When it comes to sports, dominant personality trait can be seen as an important determinant in subjects such as preferred branch, position and positive reaction time. Today, many sports and exercise psychology researchers examine the relationship of the five major personality traits with other psychological features such as psychological resilience and intelligence (Sheard and Golby, 2010; Demulier et al., 2013; Merritt and Tharp, 2013; Herrera et al., 2020).

Critical periods starting from adolescence, that will be felt throughout life, forming emotional habits, such as individuals not being self-satisfied, dissatisfied with their appearance or unable to cope with the problems they may experience in social relations, may create results that effect negatively (Sarıkabak et al., 2019). Being in sports shapes the character, teaches collaboration, improves personal discipline, teaches struggle, increases courage, teaches to evacuate aggression impulses naturally and in accordance with social rules (Singer, 1972). Improved interpersonal communication can improve the psychological structure, which plays an important role in sports as well as the development of motoric features (Aslan et al., 2016). While all these effects will help shape the character of the athlete, they will bring high performance and perhaps the success.

The degree of commitment to the goal is also an important factor in achieving high performance and success. Researchers stated that goal commitment may be an important topic for goal setting studies. However, they also stated that the goal commitment was not considered sufficiently, so that individuals may encounter unwanted results in setting targets (Hollenbeck and Klein, 1987; Hollenbeck et al., 1989).

Locke and Latham (1990) defined goal commitment as “the individual’s determination to reach a goal”. According to Hollenbeck and Klein (1987), goal commitment can be defined as an intention that aims to achieve the goal, to insist on maintaining the goal in time, and to decrease its reluctance to achieve this goal. Researchers have divided goals into two, focusing on process or performance. While the performance targets focus on reaching a higher limit of the performance of the individual, the outcome targets focus on the competition (Weingart, 1992; Burton et al., 2001).

Therefore, goal commitment can be an important feature for athletes in increasing performance and success. Wrestlers in different styles, in the international arena, may have different personality traits, which may be effective in guiding their relationship with their commitment to their goals. Researches, which can be enlightening in various processes from the criteria to be determined during the talent selection, how the feedback that the trainers should apply by considering the personality types, establish a link between personality and goal commitment and the relationship of these characteristics with individual athletes. In addition, knowing how the relationship between goal commitment, which is thought to be the predictor of personality, and the personality is predicting sub-dimensions of personality and observing which types of wrestling styles may differ, may be a guide for new studies to be conducted. It can be said that the results to be obtained may be a guide in establishing a link between style differences and branch characteristics in the wrestling branch and personality traits and goal commitment.

**METHODOLOGY**

**Research model**

This research was designed by considering the “relational screening” model. Relational screening model is a “research where the relationship between two or more variables is examined without any interference to these variables” (Büyüköztürk et al., 2017).

**The universe and sample of the research**

The universe of the research is Greco-Roman and Free-
Style wrestlers, who were studying in high schools and universities, taking part in the national tournaments in 2019. The participants were comprised of 338 wrestlers, selected by easy sampling method from the wrestlers competing in the national and international level tournaments.

**Personal information and voluntary consent form**

In the research, the “personal information form” created by the researcher and the “voluntary consent form”, which declared that the participants voluntarily take part in the research and that they can leave the study at any time, were used to determine the demographic characteristics of the wrestlers.

**Turkish big five inventory**

“Turkish Big Five Inventory”, Turkish adaptation by Evinç (2004), developed by John et al. (1991) was used to determine the personality traits of Greco-Roman and Free-Style wrestlers. The inventory consists of 44 items and includes 5 major characteristics of personality, extroversion, neuroticism, openness to experience, agreeableness and conscientiousness sub-dimensions. Items related to the sub-dimensions of the Five Factor Personality Inventory: Extroversion: 1, 6, 11, 16, 21, 26, 31, 36 (6, 21, 31 are inverted). Neuroticism: 4, 9, 14, 19, 24, 29, 34, 39 (9, 24, 34 are inverted). Openness to experience: 5, 10, 15, 20, 25, 30, 35, 40, 41, 44 (35, 41 are inverted). Agreeableness: 2, 7, 12, 17, 22, 27, 32, 37, 42 (2, 12, 27, 37 are inverted). In this study, Cronbach alpha (α) internal consistency coefficient was determined as .62.

**Goal commitment scale**

Developed by Hollenbeck et al. (1989) in 9 items, and reorganized by Klein, Wesson, Hollenbeck and Wright (2001) into 5 items, adapted to Turkish with validity and reliability studies by Şenel and Yıldız (2016). The scale used is a 5-point Likert-type scale with the answers of "(1) strongly disagree, (2) disagree, (3) indecisive, (4) agree, and (5) strongly agree. Cronbach Alpha internal consistency coefficient (α) of the scale was calculated as .66 within the scope of this study.

**Data analysis**

Descriptive statistics, Pearson correlation and simple linear regression analysis were used in data analysis.

**RESULTS**

The results are shown in Tables 1 to 5.

### Table 1. Percentage and frequency distributions of the wrestlers participating in the research.

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>61</td>
<td>18.0</td>
</tr>
<tr>
<td>Men</td>
<td>277</td>
<td>82.0</td>
</tr>
<tr>
<td>Total</td>
<td>338</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wrestling style</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free-Style</td>
<td>221</td>
<td>65.4</td>
</tr>
<tr>
<td>Greco-Roman</td>
<td>117</td>
<td>34.6</td>
</tr>
<tr>
<td>Total</td>
<td>338</td>
<td>100</td>
</tr>
</tbody>
</table>

### Table 2. The results of the relationship between the five major personality characteristics and goal commitment scores of the wrestlers participating in the research.

<table>
<thead>
<tr>
<th>Personality Trait</th>
<th>Goal commitment</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extroversion</td>
<td></td>
<td>.295</td>
<td>.000**</td>
</tr>
<tr>
<td>Neuroticism</td>
<td></td>
<td>-.052</td>
<td>.345</td>
</tr>
<tr>
<td>Openness to experience</td>
<td></td>
<td>.323</td>
<td>.000**</td>
</tr>
<tr>
<td>Agreeableness</td>
<td></td>
<td>.271</td>
<td>.000**</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td></td>
<td>.323</td>
<td>.000**</td>
</tr>
</tbody>
</table>

**DISCUSSION**

According to the results of the research, when the Pearson correlation analysis results were examined (Table 2.), moderately positive relationship was found between goal commitment and openness to experience (r = .323; p < .05) and self-discipline (r = .323; p < .05). It was seen that there was a low-level significant relationship between goal commitment and extroversion (r = .295; p < .05) and soft-headedness (r = .271; p < .05). A negative correlation (r = -.052; p > .05) was obtained between neuroticism and goal commitment but this result did not differ significantly. While the increase in the score obtained from the neuroticism sub-dimension is expected to indicate emotional instability and a negative relationship with the goal commitment, the positive relationship between the other four sub-dimensions and the goal commitment indicates the interaction between these personality traits and the goal commitment.

Concepts of extroversion, openness to experience, agreeableness and conscientiousness are personality traits associated with the individual's being social,
Table 3. The effect of five major personality traits of freestyle wrestlers participating in the research on goal commitment.

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Std. Error</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable</td>
<td>7.580</td>
<td>3.251</td>
<td>-</td>
<td>2.332</td>
<td>.021</td>
</tr>
<tr>
<td>Extroversion</td>
<td>.132</td>
<td>.080</td>
<td>.128</td>
<td>1.657</td>
<td>.099</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>-.032</td>
<td>.081</td>
<td>-.027</td>
<td>-.391</td>
<td>.696</td>
</tr>
<tr>
<td>Openness to experience</td>
<td>.106</td>
<td>.065</td>
<td>.135</td>
<td>1.642</td>
<td>.102</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>.043</td>
<td>.068</td>
<td>.049</td>
<td>.065</td>
<td>.526</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>.180</td>
<td>.074</td>
<td>.200</td>
<td>2.423</td>
<td>.016</td>
</tr>
</tbody>
</table>

R = .417; $R^2_{adj} = .155; F(220) = 9.070; p = .000$
Dependent Variable = Goal Commitment Method: Enter.

Table 4. The effect of five major personality traits of the Greco-Roman wrestlers participating in the research on goal commitment.

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Std. Error</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable</td>
<td>2.854</td>
<td>4.012</td>
<td>-</td>
<td>.711</td>
<td>.478</td>
</tr>
<tr>
<td>Extroversion</td>
<td>.084</td>
<td>.100</td>
<td>.093</td>
<td>.845</td>
<td>.400</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>.154</td>
<td>.094</td>
<td>.148</td>
<td>1.649</td>
<td>.102</td>
</tr>
<tr>
<td>Openness to experience</td>
<td>.116</td>
<td>.091</td>
<td>.147</td>
<td>1.280</td>
<td>.103</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>.205</td>
<td>.093</td>
<td>.230</td>
<td>2.195</td>
<td>.030</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>.029</td>
<td>.103</td>
<td>.031</td>
<td>.279</td>
<td>.781</td>
</tr>
</tbody>
</table>

R = .395; $R^2_{adj} = .111; F(116) = 4.114; p = .002$
Dependent Variable = Goal Commitment Method: Enter.

Table 5. The effect of the five major personality traits of the wrestlers participating in the research on goal commitment.

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Std. Error</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable</td>
<td>5.766</td>
<td>2.509</td>
<td>-</td>
<td>2.298</td>
<td>.022</td>
</tr>
<tr>
<td>Extroversion</td>
<td>.110</td>
<td>.062</td>
<td>.111</td>
<td>1.766</td>
<td>.078</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>.039</td>
<td>.061</td>
<td>.034</td>
<td>.633</td>
<td>.527</td>
</tr>
<tr>
<td>Openness to experience</td>
<td>.110</td>
<td>.052</td>
<td>.140</td>
<td>2.117</td>
<td>.035</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>.089</td>
<td>.055</td>
<td>.100</td>
<td>1.629</td>
<td>.104</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>.145</td>
<td>.060</td>
<td>.158</td>
<td>2.412</td>
<td>.016</td>
</tr>
</tbody>
</table>

R = .393; $R^2_{adj} = .142; F(337) = 12.114; p = .000$
Dependent Variable = Goal Commitment Method: Enter.

persistent in his desire to fulfill his wishes, self-confidence, compliance, planned work, and the ability to control social life (Barrick and Mount, 1991; Burke et al., 2006). Many of these characteristics are effective concepts in the degree of achievement of individuals’ commitment to their goals (Klein et al., 1999).

It can be accepted as normal to find a positive relationship between these characteristics of Greco-Roman and Free-Style wrestlers and their goal commitment. According to this result, outwardly, open to experience, self-discipline and soft-headed wrestlers can be expected to have higher commitment rates than others. The neuroticism sub-dimension includes features such as anxiety, insecurity and anxiety (Judge et al., 1999). These situations can be perceived as an obstacle to athletes’ achievement and commitment to their goals.

The fact that Greco-Roman and Free-Style wrestlers have a negative relationship between goal commitment and neuroticism sub-dimensions shows that the level of emotional instability of athletes is at an expected level. It is known that the higher score obtained from the neuroticism sub-dimension shows higher emotional imbalance.

According to the multiple regression analysis results (Table 3) regarding whether the free style wrestlers participating in the study predicted five major personality traits scores (Table 3), conscientiousness, which is one of the five major personality traits, was a significant predictor of goal commitment and explained 15% of the total variance. Personality researchers have stated that within the conscientiousness sub-dimension there are concepts such as success orientation, reliability,
regularity, efficiency, organization, responsibility, rigor and diligence (Barrick and Mount, 1991; McCrae and John, 1992; Judge et al., 1999). At the same time, conscientiousness includes the person's need for success (McCrae and Costa, 1989). The features of freestyle wrestlers in this sub-dimension may be an indication of their quest to adhere to their characteristics and to be successful in a hierarchical order (Zel, 2011). This situation may be thought to be related to the commitment of Greco-Roman and Free-Style wrestlers to the target. Locke et al. (1981) stated the commitment and determination of individuals to the target as the goal commitment, while Naylor and Ilgen (1984) stated that the goal commitment focused on the determination of individuals to reach a difficult goal. As will be based on this definition, the better the discipline status of the athletes, the better their commitment to their goals. This is because regular training and ambition are thought to have positive effects on athletes’ reaching their goals. Burger (2016) stated that individuals with high self-discipline are people who are successful in making regular, determined and planning plans before starting any business. Therefore, self-discipline levels of athletes can be considered as an important factor in their commitment to their goals.

According to the multiple regression analysis results (Table 4) of whether the Greco-Roman style wrestlers participating in the study predicted the goal commitment scores (Table 4), it was determined that agreeableness was the significant predictor of the goal commitment and explained 11% of the total variance. While the researchers explained the agreeableness sub-dimension, they stated that individuals have a compassionate, helpful and cooperative personality features (McCare and John, 1992; Burke et al., 2006). However, another aspect of agreeableness is that they have also some other personality traits, which are unemotional towards other people, incompatible and opposing, stubborn, competitive, and restrained considering the future (Yelboğa, 2006; Robbins and Judge, 2017). As in any sport branch, wrestlers are expected to have certain features in wrestling.

There are some differences between the Greco-Roman and freestyle wrestlers; the most basic of these differences is the use of just above the waist in the Greco-Roman style, while every part of the body can be used to defeat the opponent in the freestyle style. Wrestlers competing in the Greco-Roman style may be more cautious, patient and enduring towards their opponents than wrestlers competing in freestyle. Because freestyle wrestlers use all parts of their body freely, the techniques that can be applied to this style are much more diverse and abundant (Kaçmaz, 1992). Based on the definitions of agreeableness sub-dimension, Greco-Roman style athletes are more stubborn, competitive and prudent, and their competitors wrestle only according to limited body areas. This may explain their milder approach to their opponents and influence their level of commitment to the target. Similarly, Toy (2015) found positive differences between the goal orientations and achievement level variables and life satisfaction of the wrestlers in Greco-Roman and Free-Style.

People strive to develop their learning and abilities in line with their goals, regardless of whether or not they are judged according to certain norms or under what circumstances. It may also be said that this effort could make agreeableness personality trait a predictor of goal commitment in Greco-Roman wrestlers.

According to the multiple regression analysis results (Table 5) regarding whether five major personality traits scores of all of the Greco-Roman and Free-Style wrestlers, participating in the study predicted the scores of the goal commitment (Table 5), openness to experience and conscientiousness among the five major personality traits were significant predictors of goal commitment and total variance. It was determined that they explain 14%.

Openness to experience, which is one of the personality traits, includes concepts such as imagination, curiosity, productivity and originality (Barrick and Mount, 1991; McCrae and John, 1992). In this sub-dimension, individuals feel comfortable about what they are familiar with (Robbins and Judge, 2017). These features can be effective in increasing the goal commitment by focusing on the goals of athletes. Research shows that individuals with high self-discipline are more rigorous, work regularly on the road to success and achieve their goals when they have the necessary self-discipline (McCrae and John, 1992). It can be understood that these concepts explained by the researchers are related to the structure of goal commitment (Arends and Kilcher, 2010; Locke and Latham, 1990). Therefore, it can be said that Greco-Roman and Free-Style wrestlers with high level of openness to experience and conscientiousness have a significant effect on goal commitment as can be seen from the findings.

Conclusion

This study showed that agreeableness, conscientiousness and openness to experience of the five-factor personality traits in Greco-Roman and Free-Style student wrestlers have an impact on the goal commitment needed to achieve success, and that the personality traits needed for goal commitment in Greco-Roman and Free-Style wrestlers may differ. The level of goal commitment may affect the academic success in their education. Due to the results obtained as a result of these findings, similar studies in different branches, schools and age groups have been proposed.

REFERENCES

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