

# Examining the Levels of Self-Leadership Perceptions of University Student-Athletes in Terms of Sociodemographic Characteristics

## Authors' contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation
- E) obtaining funding

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## ABSTRACT

The purpose of the present study is to determine the difference of self-leadership perceptions for university student-athletes in terms of sociodemographic characteristics. The research involved 167 university student-athletes aged 18-21 years (Muğla and Kocaeli at Turkey). Self-leadership perceptions were measured by the Revised Self-Leadership Questionnaire. The number of strategies of self-leadership was calculated in the distribution of mean scores. It was found that variables such as age, education status of mother, and monthly income of the university students do not cause any difference in the levels of self-leadership perceptions. On the other hand, other factors were determined to create statistically significant differences in the use of self-leadership strategies: gender; dealing with sport outside of school; taking part in teams; branch of interested sport; education status of father; socioeconomic status; personal sport history of athletes. It has revealed that not only the psychical factors but also behavioral, cognitive, and psychological factors of self-leadership have important roles in increasing the performance of student-athletes in sport activities.

## KEYWORDS

self-leadership, student, athlete, self-regulation

## Introduction

The subject of the methods that can be used to increase the performances of the athletes has been an interesting and debated issue in sport research. One such research was a study that tried to create an increase in the performances of athletes by assisting them in developing their self-leadership skills. Self-leadership is a process by which an individual controls own behaviors, creates influence, and leads oneself by using specific behavioral and cognitive strategies in order to obtain personal and organizational success (Manz, 1986). Much research has revealed that self-leadership skills, such as self-goal setting, self-talk and mental training, have made positive contributions to the performance of an individual when used in productive ways (Beuchamp, Bray & Albinson, 2002; Mamassis & Doganis, 2004). These studies have suggested that the self-leadership perceptions of successful athletes in personal terms have an important role in the development of their performance. Therefore, perception skills and leadership in sport have become

interesting subjects for both the researchers and practitioners (Pyun et.al., 2010). However, the number of studies on the subject of sport and leadership is limited (Loughead, Hardy & Eys, 2006), as the idea only considers sport and leadership together for coaches and technical directors (Loughead, Hardy & Eys, 2006). In a changing world, though, each individual should have different skills and each individual should use these skills to become his/her own leader (Cory, 2011). In the present study, a different viewpoint is brought to the relationship between athletes and leadership in a non-standard perspective by analyzing the sport and self-leadership skills of each individual. Followers' self-leadership skills have a significant role in mental exercise, self-goal setting and self-talk education, all of which are given for the development of psychological skills (Allen, 2006). Thus, the contribution of a study just focusing on the leader behavior will be limited if it neglects followers. Therefore, physical skills are not enough for raising student-athletes to high performance (Cleary & Zimmerman, 2001), and self-leadership skills can contribute in ensuring a high performance. In certain international leadership programs, it is stated that the success of athletes can be increased by developing their self-leadership skills, and that the team success of athlete students can be increased with personal self-leadership development programs (Cory, 2011; Gorillas & Gazelles LLC, 2006). For those reasons, the findings of the present study will make critical contributions to the applicable areas in terms of student-athletes, coaches, sport psychologists, families, and university administrators.

The self-leadership concept consists of three components and nine sub-dimensions (Neck & Houghton, 2006). These are behavior-oriented strategies (self-goal setting, self-reward, self-punishment, self-observation, and self-cueing), natural reward strategies (focusing thoughts on natural rewards), and constructive thought pattern strategies (visualizing successful performance, self-talk, and evaluating thoughts and ideas). Mental skills like self-talk, self-goal setting, and visualizing are among the most important psychological characteristics enabling athletes to reach top of their performances (Howland, 2006). Therefore, teaching athletes about the effective use of cognitive and behavioral self-leadership strategies and the benefits of these strategies could create beneficial results (Allen, 2006). Also, teaching the athletes that they will need these strategies in order to increase their performance will encourage their use of self-leadership strategies. Furthermore, they can adapt these strategies to the different conditions during daily life and increase their rate of success (Allen, 2006). In light of the present literature, it can be seen that self-leadership skills are crucial factors for sustaining athletes' competition, and they have vital importance in order to create an increase in the performance of student-athletes in daily life and at school.

This study aims to determine the self-leadership perception levels of student-athletes in universities and to analyze the obtained findings in light of sociodemographic features.

## **Material and methods**

The scale was conducted with the applicants before the training at their universities. A total of 167 athletes studying at universities in Muğla and Kocaeli voluntarily participated in the study. The sample was comprised of 104 males and 63 females aged 18-21 years ( $n = 98$ ) as well as those aged 21 years and over ( $n = 69$ ). Participants had been involved in sport from 1-10 years ( $n = 113$ ) and 11-18 years ( $n = 54$ ). A total of 58% of the students were in team sports; 93% had gone on to compete at the scholastic level; 92% at the club team level; 69% had competed internationally at least once in their sport history.

The Revised Self-leadership Questionnaire (RSLQ), originally developed by Houghton and Neck (2002) and adapted by Tabak, Sığırı, and Türköz (2009) into Turkish, was used in the research. In order to ensure the Turkish form of RSLQ measured the self-leadership perceptions for sport, certain changes have been made that considered the minor differences between the management literature and the sport literature for the re-wording of items. Data were collected by testing the structure, reliability, and validity values of the RSLQ for the student-athlete sample.

The Turkish RSLQ has three dimensions and eight sub-scales (Tabak, Türköz & Basım, 2011). The reliability values of the sub-dimensions of the scale range from 0.54 to 0.81. The scale is a 5-point Likert type with anchors of 1 (never) to 5 (always). In light of the interviews with the authors of the original RSLQ

(Houghton & Neck, 2002) and the obtained data from the related literature (Manz, 1986), it was understood at the evaluation stage that the scores given for the items of self-punishment have to be omitted from the scale or the score have to be loaded reversely. Hence, the scores for self-punishment were not included in the process of calculating the self-leadership scores in the present research, as high scores for the use of this strategy in the evaluation of the scale might decrease their self-leadership perception scores (Manz, 1986).

The reliability value of the Turkish RSLQ is reported as 0.88 (Tabak, Türköz & Basım, 2011). The validity values as a result of the confirmatory factor analysis were found as  $X^2/SD = 2.10$ , GFI = 0.95, NFI = 0.87, RMSEA = 0.07, IFI = 0.93, and CFI = 0.92 (Tabak, Sığrı & Türköz, 2009). The reliability of the scale in the present research was found as 0.91 and the quality of fit index was calculated as  $X^2/SD = 3.3$ , GFI = 0.89, NFI = 0.86, RMSEA = 0.08, IFI = 0.90, and CFI = 0.89. The obtained values show that the scale has suitable features, which are applicable in the analyses (Arbuckle, 2007). The suitability of data for normal distribution was tested with Kolmogorov-Smirnov analysis and kurtosis and skewness tests. The KMO coefficient showing the suitability of data for factor analysis was found to be 0.866. The chi-square value of Bartlett sphericity was within suitable ranges: 2096.486;  $p < 0.001$ .

In addition to the self-leadership scale, certain questions including demographical variables are also asked of participants. These included: gender; age; dealing with sport outside of the school; taking place in the scholastic teams, club teams and national teams; branch of interested sport; education status of father and mother; and experience in sport in terms of years. The education status of father and mother and monthly income are accepted as a socioeconomic status (SES) variable. The participants were included in the analysis by forming three SES groups as low level, medium level, and high level based on three variables. A t-test was applied for the comparison of the self-leadership perception levels of two groups for continuous variables. Analyses are conducted with the Kruskal-Wallis test for the comparison of three and more different groups. The following abbreviations are used for the sub-dimensions of the self-leadership: Visualizing Successful Performance by Self-goal Setting (VSP), Self-Talk (ST), Self-Reward (SR), Evaluating Beliefs and Assumptions (EBA), Self-Punishment (SP), Self-Observation (SO), Self-Cueing (SC), and Natural Rewards (NR).

## Results and discussion

The mean score of the self-leadership of the sampling in the research was found to be 3.86; standard deviation was 0.85. The mean score of the sampling is higher with 1.36 scores than the mean score of the RSLQ (2.5). This result means that the self-leadership perceptions of the participants were higher than the average score. In addition to this, it was determined that the strategy that leads to the highest self-leadership perception of a participanta focused on natural rewards and the lowest one on self-cueing.

DeFrancesco and Burke (1997) stated that the most frequently used strategy by tennis players were methods intended to simply visualize. Similarly, it is found that next to natural rewards, the use of the strategy of visualizing a successful performance by setting goals is the second-most frequently preferred strategy in the present study.

It is observed that the demographic characteristics of the university student-athletes such as age, education status of the mother, and monthly income do not create any statistical difference when analyzed in terms of self-leadership perceptions ( $p < 0.05$ ). Variables that do create significant differences in the use of self-leadership perceptions include gender; place of the interested sport branch; taking place in the scholastic teams, club teams and national teams; education status of father; socioeconomic status and personal history of athletics. When analyzed according to gender, the difference between the mean scores of self-leadership strategies of female and male athletes were found to be statistically significant in terms of the use of evaluating thoughts and ideas and self-punishment strategies (Table 1). Women used both of these strategies more frequently than men did. When the self-leadership perceptions of student-athletes are analyzed according to gender, it is seen that the amount of research in literature is sparse. However, when the previous studies related to self-esteem, which is closely related with self-leadership, are analyzed (Kang et.al., 2010),

it is stated that there is a positive relation for males and a negative relation for females between sport exercise and self-esteem in terms of gender (Tiggemann & Williamson, 2000). This situation suggests a potentially similar relationship between the sport and self-leadership, but no similar finding is found in the literature. In the present study, no result was found suggesting that self-leadership perceptions of the males are in positive directions in comparison to the females. On the contrary, it is found that females use both of these strategies much more than males. In the doctoral study of Kazan (1999), certain factors affecting self-leadership perceptions were analyzed, but it was found that gender causes no significant difference in terms of the use of self-leadership strategies. The data derived from the literature are seen as contradictory. However, findings obtained from present study suggest that the self-leadership perceptions within student-athletes cause important significant differences in terms of gender.

Table 1. Distribution of mean scores of self-leadership sub-dimensions according to gender, place of sport, branches of sport, taking role in scholastic, club, and national teams

Sub-Dim.	Gender			Place of Sport			Branch of Sport		
	Female	Male	p	University	Private Sector	p	Personal	Team	p
VSP	4.00 ± 0.64	4.09 ± 0.65	.969	4.06 ± 0.64	4.21 ± 0.64	.281	4.15 ± 0.58	4.04 ± 0.69	.28
ST	3.89 ± 0.90	3.63 ± 1.03	.098	3.78 ± 0.94	3.46 ± 1.21	<b>.030*</b>	3.83 ± 1.02	3.65 ± 0.96	.26
SR	3.78 ± 1.01	3.74 ± 1.01	.808	3.74 ± 1.01	3.81 ± 1.02	.754	3.89 ± 0.90	3.66 ± 1.07	.15
EBA	4.15 ± 0.61	3.95 ± 0.63	<b>.049*</b>	4.02 ± 0.63	4.06 ± 0.64	.776	4.18 ± 0.59	3.92 ± 0.64	<b>.01**</b>
SP	3.59 ± 0.79	3.30 ± 0.09	<b>.037*</b>	3.41 ± 0.87	3.39 ± 0.85	.938	3.56 ± 0.78	3.29 ± 0.91	.052
SO	4.00 ± 0.78	4.10 ± 0.67	.365	4.04 ± 0.72	4.17 ± 0.67	.399	4.13 ± 0.69	4.01 ± 0.73	.283
NR	4.22 ± 0.85	4.02 ± 0.30	.142	4.08 ± 0.83	4.18 ± 0.78	.567	4.15 ± 0.75	4.06 ± 0.87	.522
SC	3.45 ± 1.03	3.19 ± 1.27	.182	3.27 ± 1.18	3.37 ± 1.24	.716	3.31 ± 1.14	3.27 ± 1.23	.849
Sub-Dim.	Role in Scholastic Team			Role in Club Team			Role in National Team		
	Yes	No	p	Yes	No	p	Yes	No	p
VSP	4.09 ± 0.66	4.00 ± 0.44	.623	4.10 ± 0.62	3.94 ± 0.90	.393	4.12 ± 0.64	4.02 ± 0.66	.351
ST	3.81 ± 0.90	2.51 ± 1.38	<b>.011*</b>	3.80 ± 0.91	2.79 ± 1.41	<b>.025*</b>	3.89 ± 0.80	3.35 ± 1.26	<b>.006**</b>
SR	3.76 ± 1.02	3.66 ± 0.96	.757	3.78 ± 0.99	3.41 ± 1.25	.199	3.82 ± 0.98	3.61 ± 1.07	.225
EBA	4.05 ± 0.62	3.43 ± 3.00	.100	4.05 ± 0.60	3.75 ± 0.91	.096	4.08 ± 0.57	3.90 ± 0.74	.080
SP	3.43 ± 0.87	3.02 ± 0.83	.128	3.45 ± 0.86	2.82 ± 0.83	<b>.020*</b>	3.46 ± 0.83	3.28 ± 0.94	.218
SO	4.05 ± 0.73	4.20 ± 0.48	.518	4.07 ± 0.69	4.00 ± 0.94	.720	4.07 ± 0.72	4.06 ± 0.71	.951
NR	4.11 ± 0.81	3.90 ± 0.91	.424	4.11 ± 0.80	3.92 ± 1.01	.417	4.18 ± 0.76	3.91 ± 0.93	<b>.048*</b>
SC	3.32 ± 1.17	2.90 ± 1.44	.271	3.34 ± 1.15	2.69 ± 1.49	.148	3.29 ± 1.13	3.28 ± 1.33	.948

\* p < 0.05, \*\* p < 0.01

Source: own study.

Comparing the mean scores of self-leadership strategies in terms of the place of the interested sport, the use of self-talk strategy is less common in students who participate in sport activities at universities and in the private sector than students who have role just at a university (Table 1). Students who participate in activities related to sport in the private sector after school display less self-talk behavior. In a study conducted by Peluso et al. (2005), analyses were conducted on the mental methods increasing the performance of sport skills. In that study with 150 athletes, self-talk methods and mental exercise method were compared. It was found that the athletes who participated 10 and less hours in sport activities a week used the self-talk method much more frequently. It was also stated that the athletes who participated 10 and more hours in sport activities in a week preferred mental exercise methods. The finding obtained in the present study that suggest that athletes participating in sport activities much less (just at a university) used self-talk strategy than the ones who participated in sport activities much more (both in university and in private sector) is similar to the previous study.

When the self-leadership perception levels of the students are analyzed according to the branch of interested sport, it is found that the athletes interested in personal sport use evaluating thoughts and ideas strategies much more than the ones participating in team sports (Table 1). The fact that the athletes interested in personal sports give much more importance in their own thoughts and ideas, and that the athletes participating in team sports, which create “we-feeling”, pay less importance, can be presented as the reason for this finding. It is accepted that people with high self-esteem also have high levels of self-leadership

(Kang et.al., 2010). In a study conducted by Hardy et al. (2004) with 291 athletes, it was determined that the athletes interested in personal sports used self-talk strategy much more frequently than athletes participating in team sports. A similar result was obtained in the present study, but this situation does not cause any significant difference.

The distribution of the mean scores of the sub-dimensions of the self-leadership according to taking roles in scholastic, club, and national teams is given in Table 1. It is seen that the students taking a role in a scholastic team apply self-talk strategy much more frequently than do students not taking any role. It is also defined that the ones taking a role in a club team apply self-talk and self-punishment strategies much more than the ones not participating on club teams. In the study, licensed athletes are evaluated as professional while non-licensed ones are defined as amateur. It was stated in previous studies that professional athletes use the self-regulation strategy much more frequently than amateur ones (Cleary & Zimmerman, 2001; Kitsantas & Zimmerman, 2002). A result supporting this finding was obtained in this study. Significant differences are defined between these two groups in terms of self-leadership skills. It is understood that the professional student-athletes apply self-regulation much more frequently by using self-talk strategy than amateurs do.

Similarly, Jonker et al. (2010) reported that professional athletes are much more successful in the application of self-regulation skills than their peer non-professional athletes, and create a difference; however, this situation does not satisfactorily explain the difference between good athletes and the best athletes. In a different study performed with 30 female athletes, the results suggested that professional athletes used goal setting, self-observation, and evaluating thoughts and ideas strategies on a higher level than the unprofessional ones or beginners (Kitsantas & Zimmerman, 2002). The fact that the student-athletes participating on club teams and scholastic teams display much more self-talk strategy and self-regulation strategy than the ones not participating on teams suggested us that the licensed athletes are much more successful in using this strategy or that they are superior as they use this strategy much better. Emphasizing the same situation, Gilbert et al. (2006) state that focusing on the positive self-talks rather than the negative self-talk strategy of the student-athletes is understood and applied frequently by athletes as well. Similarly, Hardy et al. (2004) found that much more skilled athletes preferred self-talk strategy much more frequently than did less skilled athletes. These findings showed that as the skill levels of athletes increase, the more the use of positive self-talk strategy increases.

Important differences have been defined between the self-leadership perceptions of the athletes participating in national teams and the ones who have not yet participated. The ones participating in national teams prefer self-talk and focus on natural rewards strategies more frequently than non-participating ones (Table 1). This finding is important, as it shows that, in fact, self-leadership strategies are used frequently among all athletes, but the athletes at the highest success level reach important differences in terms of their self-leadership perceptions. This is because the athletes participating or not participating in national team can be – to the extent necessary – their own leaders, as seen in the findings. Hence, there is not a vital difference in their self-leadership perceptions in terms of demographic variables. However, according to the result obtained on the level of national teams, it can be possible to mention such differences among the athletes at higher levels. It was defined in a study conducted by Jonker et al. (2010) that student-athletes who took charge in international competitions and races used behaviors like self-observation and correcting mistakes by evaluating themselves much more frequently than the ones not taking charge in international fields. In contrast to the study by Jonker et al. (2010), which considered the self-leadership skills between student-athletes who took charge in international competitions and the ones who did not take charge, the present study indicates that there is no significant difference between these two groups. However, it is also determined in the present study that the strategies for self-talk and focusing on natural rewards are used much more frequently by student-athletes who participate in national teams than the ones who participate in club or scholastic teams. It is thought, therefore, that the frequency of the use of focusing on natural rewards can occur as a result of a perception of the athletes for national teams in terms of the obtained satisfaction and self-realization. This is because the strategy of focusing on natural rewards is a set of activities that are

conducted as they take place in any event, occur as a result of the completion of an activity, and are thought to please the individual as they cheer a person up (Manz, 1992). In that case, it suggests that the student-athletes taking a role in a national team can focus on natural rewards as a result of the fact that they esteem the activity itself without affording any advantage, and as a result of the pleasure due to being a national athlete. Similarly, in a study conducted by Helsen et al. (1998) on athletes on football and hockey teams, it is determined that the ones in national teams use self-regulation methods on a much more significant level than athletes in club teams (Cleary & Zimmerman, 2001). This finding shows us that athletes participating in national teams have important superiorities in terms of the skill to use self-leadership strategies in comparison with the athletes not participating in national teams. Here the following questions come to mind: "Do national athletes take roles on national teams, as they have self-leadership skills or as their existence on national teams makes them use self-leadership skills?" Both questions contain its answer in it. Self-leadership and success are two variables that trigger each other. Here the most important point at which a consensus can be arrived is the empowerment of the acceptability of the fact that self-leadership skills of national athletes, which focus on the rewards that are at the core of the phenomenon like natural rewards, make positive contributions in their performances as well. This designation indicates the same result with the previous studies suggesting that an individual's goal-setting and having certain strategies make positive contributions in athletic performance (Cleary & Zimmerman, 2001). Masciana et al. (2001) state that self-talk is a strategy that ensures performance development and is the most preferred one among dart players. This finding shows parallels with the fact that the self-leadership strategy, where the biggest difference occurs between the athletes participating in school, club, and national teams and the ones not participating in any of these teams. In other words, the athletes who take place in any team (scholastic, club, or national team) use the self-talk strategy much more frequently than the ones not taking any role. The question that asks why certain cognitive strategies are preferred by athletes much more than the others requires different research and analyses related to how athletes use their intellectual capacities and their knowledge (Allen, 2006).

When the mean scores of self-leadership strategies are analyzed according to the education status of the fathers of the students, the fathers who have an education above the high school (college, bachelor, postgraduate, and doctorate degrees) use evaluating thoughts and ideas and focusing on natural rewards strategies much more frequently than the ones who have elementary and high school degree, according to the scores of the sub-dimensions of self-leadership (Table 2). This finding means that there are many effects on the individual, as the father is accepted as a role model and the leader of the home in collectivist cultures like Turkey, and that this situation is also available in the self-leadership skills of individual. In this framework, the athletes with fathers whose educational status is high have a relatively decreased superior ability in terms of self-leadership skills than athletes whose fathers have a lower educational status.

When evaluating self-leadership skills according to the socioeconomic status variable, those individuals with a high socioeconomic status use the "self-reward" strategy more frequently than the other individuals on the other two groups on lower levels (Table 2). A significant difference is determined in self-reward strategy in the groups formed according to the socioeconomic status indicators of the university student-athletes. Participants in the high SES group used this strategy more frequently than the ones in the lower SES groups. In other words, as the student-athletes completed the work successfully, whether they voluntarily or involuntarily, their self-leadership perceptions, expressing their self-congratulation and self-rewards, have an importance in terms of the SES group. The self-reward of athletes in high-level SES groups, by giving themselves presents in a satisfying aspect or participating in certain activities that give pleasure to the participants, is applied much more than athletes in lower SES groups. This finding shows parallels with the findings of the studies by Nota et al. (2004) and Sirin (2005). Considering the similar findings, it can be stated that the self-leadership skills of the student-athletes coming from the families who have high levels of income and educational status may be partly higher than the others who have lower levels of income and educational status.

Table 2. Distribution of mean scores of self-leadership sub-dimensions according to education status of father, SES groups, and sport history

Sub-Dim	Education Status of Father			p	Socio-Economic Status Levels			
	Elementary	High School	Above High School		Low	Medium	High	p
VSP	4.15 ± 0.53	3.97 ± 0.79	4.19 ± 0.51	.379	3.95 ± 0.70	4.14 ± 0.60	4.31 ± 0.59	.088
ST	3.80 ± 0.89	3.63 ± 1.08	3.73 ± 1.09	.794	3.58 ± 1.08	3.78 ± 0.94	3.98 ± 0.88	.396
SR	3.67 ± 1.06	3.77 ± 1.00	3.97 ± 0.87	.623	3.65 ± 1.04	3.72 ± 0.99	4.29 ± 0.88	<b>.037*</b>
EBA	4.09 ± 0.57	3.88 ± 0.69	4.19 ± 0.61	<b>.046*</b>	3.97 ± 0.66	4.03 ± 0.61	4.22 ± 0.61	.328
SP	3.39 ± 0.90	3.38 ± 0.91	3.52 ± 0.64	.880	3.27 ± 0.93	3.46 ± 0.86	3.58 ± 0.66	.361
SO	4.15 ± 0.64	3.99 ± 0.81	3.95 ± 0.68	.308	3.95 ± 0.75	4.15 ± 0.69	4.05 ± 0.64	.126
NR	4.17 ± 0.65	3.88 ± 1.01	4.43 ± 0.59	<b>.032*</b>	4.04 ± 0.86	4.09 ± 0.82	4.35 ± 0.65	.383
SC	3.36 ± 1.18	3.19 ± 1.19	3.33 ± 1.24	.686	3.42 ± 1.11	3.14 ± 1.21	3.58 ± 1.19	.199

  

Sub-Dimensions	Sport History		p
	1-10 years	11-18 years	
VSP	4.02 ± 0.64	4.23±0.63	.054
ST	3.63 ± 1.00	3.92±0.95	.079
SR	3.66 ± 1.03	3.95±0.94	.081
EBA	3.96 ± 0.66	4.17±0.54	<b>.042*</b>
SP	3.38 ± 0.86	3.46±0.90	.591
SO	3.96 ± 0.73	4.29±0.62	<b>.004**</b>
NR	4.05 ± 0.88	4.20±0.66	.271
SC	3.30 ± 1.17	3.26±1.25	.853

\*  $p < 0.05$ , \*\*  $p < 0.01$ 

Source: own study.

When the self-leadership perceptions of students are analyzed according to the history of sport, it is found that athletes who have athletic experience of 1-10 years use evaluating thoughts and ideas and self-observation strategies less than the ones with experience of 11-18 years (Table 2).

It is revealed that as the history of sport increases, the self-leadership behavior of athletes increases as well. No other similar study dealing with the relationship between sport history and the use of self-leadership strategies can be seen in the literature. However, it was stated in the study conducted by Carmeli et al. (2006) that the working period does not cause any difference in the self-leadership perceptions of individuals. In another study conducted by Kazan (1999), it was stated that there was a negative relationship between job experience and self-leadership perceptions. The results of both studies do not match up with each other, and findings of the present study contradict both of these studies as well. Therefore, it can be said that no consensus has been reached on whether or not the sport history of athletes creates a difference on the self-leadership perceptions of the athletes.

## Conclusion

In analyzing the factors that are thought to affect the performance of athletes, it is understood that self-leadership perceptions have an important impact. It is seen that three self-leadership strategies related to athlete performance are frequently dealt in sports psychology. These strategies are self-goal setting, self-talk, and mental exercises (Allen, 2006). It is defined in the present study that the use of all three strategies is considerably higher than the mean scores of self-leadership. The usage frequency of other self-leadership strategies is at considerably high levels as well. This situation shows that self-leadership strategies are frequently used by university student-athletes in their daily life. In addition, there are certain significant differences between self-leadership perception levels and certain sociodemographic characteristics. The results show that the level of self-leadership perceptions of student-athletes studying at universities is high. With high-level SES groups, self-leadership perceptions also increase. The educational background of the father is an important factor in the development of self-leadership. In addition, the student-athletes who participate in tasks such as scholastic, club, and national teams have much more usage of self-leadership skills than the ones who do not participate in such tasks, and that female athletes partly use certain self-leadership strategies more frequently than males. Further, athletes interested in personal branches of sport

show much more self-leadership behaviors than the ones taking roles in teams. It is also seen that athletes who have a long history of sport have higher self-leadership perceptions than new athletes. In addition to these results, it is found that the ones who take role in both the universities and private sector use self-talk strategy on a significantly low level.

One of the most important findings of the study is to reveal that athletes frequently use strategies such as self-reward, self-observation, and visualizing successful performance by self-goal setting. This finding explains that there are no vital differences for the use frequency of self-leadership strategies among athletes. However, it is understood that the self-talk and evaluating thoughts and ideas strategies cause differences in the use of four self-leadership strategies in terms of sociodemographic variables. This situation brings the idea that the student-athletes who have superior characteristics use these two strategies much more frequently than the others. The use of the other strategies does not cause vital differences between athletes. It is also assumed that the positive use of the aforementioned two self-leadership strategies affects the success of the athletes and contributes to their success. In that case, it can be said that gaining self-leadership skills has great importance in ensuring an increase in performance and should be a feature that has to be frequently applied by the student-athletes in daily life.

It will be a wrong approach to expect athletes to show a great increase both in their sport activities and in their performance in and out of school in a short time by increasing and encouraging their self-leadership skills. The development of self-leadership skills, along with psychical training, will greatly contribute to getting optimum results. A development can be obtained in the performance values especially with the development of positive self-talk and evaluating thoughts and ideas strategies that create a difference. Zimmerman (2002) stated that students have the ability for the substantial development of their self-regulation skills, and, according to him, every individual can learn new things from his/her environment, family, peers, teachers, and team coaches for developing his/her self-regulation. Therefore, the self-leadership behaviors that are rooted in self-regulation theory can also be developed and managed. Here there are certain responsibilities for individual's himself/herself, family, teachers, and team coaches. The active use of self-leadership skills by athletes within that period will contribute to both themselves and their teams.

The increase in the performances of student-athletes can be obtained by making them gain self-leadership skills, making them gain awareness for how to use the available leadership skills, and training them. Considering how much students take their trainers or coaches as role models, it is important that trainers know how to improve self-leadership skills. It is also known from previous studies that an increase is seen in the performance of individuals who have taken self-leadership education, and it has support from the findings in the present study. Therefore, it can be said that self-leadership skills will contribute to the increase of success in sport activities on personal and team dimensions. In this context, the most important contribution of this study is that, with the differences in the use of self-leadership strategies, it has revealed that not only the psychical factors but the behavioral, cognitive, and psychological factors also have important roles in increasing the performance of student-athletes in sport activities.

Analysis of self-leadership skills, together with different variables in future studies, will make different contributions especially for students, athletes, and administrators. In addition, it is thought that the perceptions between student-athletes and non-athletic students can differentiate significantly, especially when self-leadership skills are handled with different cognitive and behavioral variables. Besides, research, and lessons for the development of self-leadership skills, and conducting comparative examinations with control groups will empower the generalizability of the findings of the present study.

Due to the fact that this study is a unique research which was conducted with students engaged in professional and non-professional sport while studying at universities and the fact that no similar research has been carried out on a similar group of participants in the area of self-leadership, the discussion and the comparison of the results is limited. Moreover, the most critical limitation in this study is that collected data has been obtained on a scale that was filled by students themselves. As any of the social desirability scales

have not been used with this scale, it may lead to not having a structure that can ignore the reactive dilemmas of students.

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