

The effect of self-talk on athletes

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ABSTRACT

The purpose of this study is to examine the effect of self-talk on motivation and performance of individuals by different variants. The sample of the research consisted of 233 athletes in total, 113 are women and 120 are men living in 30 different provinces in Turkey and interested in different branches in 2020. The 'self-talk scale', developed by Brinthaup, Hein and Kramer (2009) and adopted to Turkish by Akın et al. (2010) which aims to assess the emotional, behavioral and cognitive aspects of the self-talk, was used as a data collection tool. The data obtained in the study were analyzed by using the IBM SPSS (Statistical Package for Social Sciences) for Windows 15.0 program. Number, percentage and frequency were used as descriptive statistical methods in the evaluation of data. According to the obtained data, significant differences between the age variant and 'self-criticism' which is the sub-dimension of self-talk scale, between 'social assessment' and 'self-criticism' which are the sub-dimensions of gender and self-talk scale, and between the level of doing sports and the sub-dimension of self-criticism" have been gained.

Keywords: Self-talk, athlete, motivation.

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INTRODUCTION

Individuals tend to speak internally, unconsciously or willingly for most of their lives. This can enable these individuals to be motivated to life, to do their jobs in a more decent way during the day or to be more successful while managing the tasks. From another point of view, individuals can get lost in negative thoughts with inner talk and all their behaviors in life can be affected by these thoughts.

Self-talk

The individual's experience of talking to himself/herself has been one of the fields of study which constantly draws attention of philosophers and psychologists in the historical process (Brinthaup et al., 2009; Fields, 2002; Jaynes, 1976; Lyons, 1986). In order to describe the individual's experience of talking to himself/herself, researchers have suggested a number of terms. Some of these terms are internal monologue or dialogue, private talk, self-talk etc. In general, researchers preferred the terms "private talk" to describe the individual and loud talk, and "internal talk" to describe the quiet talk.

An important point to consider in the process of self-talk is whether it is a simple that reflects a limited part of cognition and consciousness (Fields, 2002) or is an important process that plays a critical role in the social and personal life of the individual. Theorists and practitioners working in the field of psychology (Diaz and Berk, 1992; Hardy, 2006; MacKay, 1992) argued that the individual's talking to himself/herself has important cognitive and self-regulatory functions. Surprisingly, researchers working in the field of personality psychology and social psychology did not pay much attention to the self-talk structure or to develop measurement tools for measuring behavior, thought and emotions related to this term. In conclusion, there is no satisfactory measurement tool that can assess the interpersonal differences in individuals' self-speaking levels in a valid and reliable manner including behavioral and self-regulatory functions of self-talk (Brinthaup et al., 2009).

When the limited number of studies in the field of self-talk was examined, it was noted that a significant part of these researchers mentioned the negative effects of self-talk. In these studies, (Hardy, 2006; Kendall and Hollon, 1989; Schwartz and Garamoni, 1989) the negative self-

talks of the individuals were considered as an indicator of depression and anxiety and the emotional dimension of the internal talks was considered more. For example, Schwartz and Garamoni (1989) mentioned the existence of various psychopathological conditions that may be related to the level of negative self-talks.

Self-talk is an important dimension of the self-regulation process (Berk, 1992; Morin, 1993) which has been extensively considered in many studies such as Bandura (1986), Baumeister and Heatherton (1996), Carver and Scheier (1998) and Mischel et al. (1996). It has been accepted that the self-management and direction of the individual play a critical role in the self-control process. Mischel et al. stated that self-talk has a function that guides the individual's behavior and makes it easier for him to achieve his goal. Similarly, Carver and Scheier (1998) considered self-talk as a process that helps the individual monitor his/her behavior and control his/her emotional responses and misbehavior.

Sport-specific self-talk

As mentioned earlier, talking to himself/herself is the way of warning, evocating or assessing himself/herself. Hardy (2006) suggested that self-talk should be split into categories including valence and clarity. It has been described that self-talking has educational and motivational functions as it functionally affects the focus, confidence, effort regulation, cognitive and sensory control and automatic execution factors and leads the goal of success.

Researchers in other fields also stated that self-talk includes both internal talk and hearing and can serve the functions related to problem solving, planning, memory, changing the tasks and self-control/regulation (Hurlburt et al., 2013).

Regarding the valence, self-talk is often categorized as positive and negative. Positive self-talk consist of encouraging or positive expressions that people say to themselves, such as "I can do this" or "Yes". Negative self-talk includes the negative things including anger, disappointment or discouraging expressions such as "You are slow" or "That's terrible". In motivational self-talk, it is understood from the individual's expressions such as "Let's go" or "I feel good" that self-talk is of positive valence. However, negative expressions such as "Bad game, stupid" are considered positive/facilitating if their usage results in improved performance. Similarly, if positive statements such as "You can do it" are distracting and cause poor performance, they are considered negative/debilitating (Van Raalte et al., 2015).

Many researchers participate in other assessments on self-talk of Theodorakis et al. (2012). But instead of comparing the results of behavior or performance, self-talk is best described by expressions that will explain self-talk. Other types of self-talk which do not easily fit into

positive, negative, educational and motivational categories have been less investigated by sports psychologists. For example they paid less attention to the calming, self-protective, humoristic self-talks and the self-talks related to other people ("such as: "All people sometimes fail", "Keep calm and keep playing", "I train myself very well", "I want strawberry milkshake", "It is exciting to be in a Championship match", "This referee is terrible", "My teammates are playing well", "If it goes like this, my coach will get angry.").

The associative self-talk focuses on the bodily sensations during endurance performance and it tends to be more common in high-intensity sports performances. For example: "My shoulders are tight and that's what I need to feel right now" (Aitchison et al., 2013). Hardy (2006) stated that self-talk can be categorized based on clarity. In other words, self-talk can be openly, loudly, not directly spoken by mouth or completely internal. Although only open self-talk involves voice reproduction, Larrain and Haye (2012) argued that internal and open self-talk are similar in terms of key features.

Considering the impact of self-talk on performance and self-efficacy, Son et al. (2011) randomly selected a group of undergraduate students and by using "I" in the study where they wanted these people to practice internal conversation by saying "I" to their own competencies and "we" to their group competencies, they found that self-talk negatively affects performance, self-efficacy and collective effectiveness compared to the other approach.

In summary, self-talk differs in a number of features. It is particularly useful for the studies related to the self-talk since self-talk categories such as function, valence, clarity and linguistic form are documented objectively (Diaz, 1999). The sport-specific self-talk makes the dynamic relations between personal factors, situational factors, cognitive mechanisms, motivation and anxiety, behavior and self-talk more understandable.

So far, self-talk has been shown to be associated with behavior in various tasks such as interview success, school performance and sports performance (Senay et al., 2010). Regarding sports performance, it has been shown that self-talk improves the performance in badminton, basketball, cycling, darts, golf, running, abdominal crunch, skiing, shooting, swimming, tennis and volleyball (Blanchfield et al., 2014). The relation between self-talk and performance in researches on sport psychology helps to explain the position of self-talk as an integral component of the sport psychology criterion (Andersen, 2009).

Hatzigeorgiadis et al. (2011) and Tod et al. (2011) published a systematic review of literature on self-talk in sports and concluded that positive, educational and motivational self-talk was associated with improved sports performance. The educational and motivational self-talk positively influenced the performance of fine and gross motor skills tasks. Contrary to what is commonly believed, negative self-talk has no negative effects on

sports performance, but other sports psychology researchers (Van Raalte et al., 1995, 2006) concluded that negative self-talk is harmful to sports performance.

The aim of this study is to see the effects of self-talk on athletes and to add the results obtained in this context to the literature and also to ensure that the actors address the general public based on the basic characteristics of age and gender variants. Therefore, with this study, it was aimed to investigate the emotional, behavioral and cognitive aspects of self-talk disposition in athletes.

METHODOLOGY

In this part of the research, detailed information was given about the population, sample and method of the study.

Research group

This study was conducted in Turkey in 2020 on a total of 223 athletes who do sports in various branches, and who live in 30 provinces and can be accessed by researchers (Table 1). The age range of the research group

consisting of 113 females and 120 males was determined as 15 to 40. It was also determined that the 93 of the athletes were amateur and 140 were Professional. The number of participants interested in team sports was 135 and the number of those interested in individual sports was 98. Athletes participated in the research voluntarily.

Looking at the distribution of age variant of the athletes who participated in the survey, 128 of the participants (that is 54%) were between the ages of 15-20. 73 of the participants (31.3%) were between 20-25, 8.2%, that is, 19 were between 25-30, 2.6%, that is, 6 were between 30-35 and 3%, that is 7 were between 35-40. Looking at the distribution of the gender variant; While 48.5%, that is, 133 of the participants were female, 51.5%, that is, 120 of them were male.

Considering the distribution of the gender variant, 48.5%, that is, 113 people are women, 51.5%, that is, 120 people are men. When looking at the distribution of the Sport Level variant, 39.9%, that is, 93 people are amateur, while 60.1%, that is 140 people, are professional. Considering the distribution of the branch variant, 57.9%, that is, branch of 135 people is team sports, while 42.1%, that is, 98 branches of individuals are individual sports.

Table 1. Demographic information of participants.

| | Variant | Frequency (n) | Percentage (%) |
|--------------|-------------------|---------------|----------------|
| Age | 15-20 | 128 | 54.9 |
| | 20-25 | 73 | 31.3 |
| | 25-30 | 19 | 8.2 |
| | 30-35 | 6 | 2.6 |
| | 35-40 | 7 | 3.0 |
| Gender | Female | 113 | 48.5 |
| | Male | 120 | 51.5 |
| Sports level | Amateur | 93 | 39.9 |
| | Professional | 140 | 60.1 |
| Branch | Team Sports | 135 | 57.9 |
| | Individual Sports | 98 | 42.1 |

Data collection tool and reliability

As data collection tool, "self-talk scale" developed by Brinthaup et al. (2009) and adopted to Turkish by Akin et al. (2010) was used. The scale consists of 16 articles aimed at assessing the emotional, behavioral and cognitive aspects of self-talk tendency. The reliability coefficients of the Self-Scale Scale (STS; Brinthaup et al., 2009) were reported as .82 for the social evaluation subscale, .89 for the self-reinforcement subscale, .83 for

the self-criticism subscale, and .79 for the self-management subscale. The Turkish version of the reliability coefficients was .78 for the social evaluation subscale, .73 for the self-reinforcement subscale, .74 for the self-criticism subscale, .82 for the self-management subscale, and .76 for the whole scale. In the self-talk scale, each article is evaluated as 1 (totally disagree), 2 (disagree), 3 (partially agree), 4 (agree) and 5 (totally agree). Additionally, the demographic information questionnaire prepared by the researchers was used.

Data analysis

The data obtained in the current research were analyzed by using the IBM SPSS 22 (Statistical Package for Social Sciences) for Windows 15.0 program. Number, percentage and frequency were used as descriptive

statistical methods in the evaluation of data (Table 2). The total scale and its sub-dimensions do not come from the normal distribution ($p = 0.000 < \alpha = 0.05$). Therefore, variants with level number 2 were analyzed using Mann-Whitney test statistics and variants with level number 3 or more were analyzed using Kruskal-Wallis test statistics.

Table 2. Normality test results of scale and its sub-dimensions.

| | Social evaluation scale | Self-reinforcement scale | Self-criticism scale | Self-management scale | Total of scale |
|-------------------------|----------------------------|-----------------------------|-------------------------|--------------------------|-------------------|
| Average | 14.84 | 14.88 | 14.19 | 15.21 | 59.14 |
| Standard Deviation | 0.245 | 0.254 | 0.250 | 0.251 | 0.884 |
| Kolmogorov Smirnov Test | 0.102 | 0.128 | 0.103 | 0.113 | 0.084 |
| P-value | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

FINDINGS

In this section, the obtained findings based on the analysis of the data collected from various athletes for the solution of the research problem by using the scale. Hence, explanations and comments were made.

As a consequence of the Kruskal-Wallis analysis made between the scales and age, a statistically significant relationship was found between the self-criticism scale and age ($p = 0.033 < \alpha = 0.05$) but no statistically significant difference was found between the other scales and age ($p = 0.659 > \alpha = 0.05$, $p = 0.178 > \alpha = 0.05$, $p = 0.603 > \alpha = 0.05$, $p = 0.418 > \alpha = 0.05$) (Table 3). As a result of the Mann-Whitney-U test which was made to find the differences between the levels of the age variant, it is seen that the difference in the self-criticism sub-dimension arises from the difference between the ages of 15-20 and 20-25. The data analysis reveal that athletes between 15-25 have a low level of self-criticism due to various reasons.

Hence the Mann-Whitney analysis made between the scales and gender, a statistically significant relationship was found between the social evaluation scale and gender ($p = 0.050 < \alpha = 0.05$, $p = 0.014 < \alpha = 0.05$) but no statistically significant difference was found between the other scales and gender ($p = 0.050 < \alpha = 0.05$, $p = 0.014 < \alpha = 0.05$) (Table 4). The difference between the social evaluation and self-criticism scales arises from the females. It can be statistically that female participants have difficulties in thinking in an objective way during the evaluation and self-criticism against their social environment.

As a result of the Mann-Whitney analysis made between the scales and sports level, a statistically significant relationship was found between the self-criticism scale and sports level ($p = 0.031 < \alpha = 0.05$) but no statistically significant difference was found between the other scales and sports level ($p = 0.136 > \alpha = 0.05$, $p = 0.409 > \alpha = 0.05$, $p = 0.522 > \alpha = 0.05$, $p = 0.149 > \alpha =$

0.05) (Table 5). The difference in the sub-dimension of self-criticism stems from the ones whose sports level is professional. By looking at the table, it can be concluded that professional athletes have difficulty in being objective while evaluating or criticizing themselves.

Consequently the Mann-Whitney analysis made between the scales and branch, no statistically significant relationship was found between the self-reinforcement scale and branch ($p=0,075 > \alpha=0,05$) but a statistically significant difference was found between the other scales and branch ($p=0,000 < \alpha=0,05$, $p=0,000 < \alpha=0,05$, $p=0,003 < \alpha=0,05$, $p=0,000 < \alpha=0,05$) (Table 6). The difference in social evaluation, self-criticism, self-management and total scales arise from the ones whose branch is team sports. Looking at the results displayed in Table 6, it can be deduced that the participants who are interested in individual sports have a positive tendency towards themselves and their environment.

DISCUSSION

The results of the analysis of the study aiming to examine the emotional, behavioral and cognitive aspects of the self-talk tendency in athletes through different variants are as follows:

According to the data obtained, a significant difference was found between the age variant and "self-criticism" which is the sub-dimension of the self-talk scale. It was concluded that this difference was due to the athletes aged between 15-20 and 20-25. The reason for this result may be that the athletes who are young or at the beginning of adulthood are not able to make an accurate evaluation of themselves during the self-criticism due to various environmental and psychological factors.

In gender, another variant of the study, significant differences were found between the dimensions of "social evaluation" and "self-criticism" which are the sub-dimensions of the self-talk scale. It was concluded that

Table 3. Kruskal-Wallis analysis made between age variant and scales.

| Scales | Age | Average | Standard deviation | Kruskal-Wallis | p value |
|--------------------------|-------|---------|--------------------|----------------|---------|
| Social evaluation scale | 15-20 | 14.49 | 3.87 | 2.417 | 0.659 |
| | 20-25 | 15.26 | 3.78 | | |
| | 25-30 | 15.63 | 2.50 | | |
| | 30-35 | 14.67 | 4.50 | | |
| | 35-40 | 15.00 | 3.46 | | |
| Self-reinforcement scale | 15-20 | 14.48 | 3.87 | 6.300 | 0.178 |
| | 20-25 | 15.38 | 4.23 | | |
| | 25-30 | 14.68 | 2.60 | | |
| | 30-35 | 15.83 | 3.92 | | |
| | 35-40 | 16.86 | 2.73 | | |
| Self-criticism scale | 15-20 | 13.59 | 3.67 | 10.512 | 0.033* |
| | 20-25 | 15.21 | 4.02 | | |
| | 25-30 | 13.89 | 2.98 | | |
| | 30-35 | 13.17 | 5.15 | | |
| | 35-40 | 16.29 | 3.25 | | |
| Self-management scale | 15-20 | 14.85 | 3.96 | 2.737 | 0.603 |
| | 20-25 | 15.73 | 3.91 | | |
| | 25-30 | 15.53 | 2.87 | | |
| | 30-35 | 15.00 | 4.56 | | |
| | 35-40 | 16.00 | 2.52 | | |
| Total scale | 15-20 | 57.42 | 13.42 | 3.911 | 0.418 |
| | 20-25 | 61.58 | 14.27 | | |
| | 25-30 | 59.74 | 9.33 | | |
| | 30-35 | 58.67 | 17.45 | | |
| | 35-40 | 64.14 | 10.30 | | |

Table 4. Mann-Whitney analysis made between gender variant and scales.

| Scales | Gender | Average | Standard deviation | Mann-Whitney | p value |
|--------------------------|--------|---------|--------------------|--------------|---------|
| Social evaluation scale | Female | 15.39 | 3.49 | 5782.5 | 0.050* |
| | Male | 14.33 | 3.91 | | |
| Self-reinforcement scale | Female | 14.93 | 3.80 | 6764.5 | 0.976 |
| | Male | 14.85 | 3.97 | | |
| Self-criticism scale | Female | 14.88 | 3.51 | 5529.0 | 0.014* |
| | Male | 13.54 | 4.00 | | |
| Self-management scale | Female | 15.64 | 3.71 | 6004.5 | 0.130 |
| | Male | 14.83 | 3.94 | | |
| Total scale | Female | 60.84 | 12.67 | 5951.0 | 0.107 |
| | Male | 57.55 | 14.10 | | |

Table 5. Mann-Whitney analysis made between the sports level variant and scales.

| Scale | Sports level | Average | Standard Deviation | Mann-Whitney | p value |
|--------------------------|--------------|---------|--------------------|--------------|---------|
| Social evaluation scale | Amateur | 14.42 | 3.77 | 5762.5 | 0.136 |
| | Professional | 15.13 | 3.71 | | |
| Self-reinforcement scale | Amateur | 14.63 | 3.94 | 6095.5 | 0.409 |
| | Professional | 15.06 | 3.85 | | |
| Self-criticism scale | Amateur | 13.48 | 4.03 | 5428.5 | 0.031* |
| | Professional | 14.66 | 3.61 | | |
| Self-management | Amateur | 14.98 | 4.02 | 6188.5 | 0.522 |
| | Professional | 15.38 | 3.73 | | |
| Total scale | Amateur | 57.52 | 13.79 | 5784.0 | 0.149 |
| | Professional | 60.23 | 13.24 | | |

Table 6. Mann-Whitney analysis made between branch variant and scales.

| Scale | Branch | Average | Standard deviation | Mann-Whitney | p value |
|--------------------------|-------------------|---------|--------------------|--------------|---------|
| Social evaluation scale | Team Sports | 15.83 | 3.21 | 4252.0 | 0.000* |
| | Individual Sports | 13.49 | 4.01 | | |
| Self-reinforcement scale | Team Sports | 15.39 | 3.41 | 5716.0 | 0.075 |
| | Individual Sports | 14.20 | 4.38 | | |
| Self-criticism scale | Team Sports | 15.01 | 3.32 | 4810.5 | 0.000* |
| | Individual Sports | 13.06 | 4.17 | | |
| Self-management scale | Team Sports | 15.96 | 3.24 | 5121.0 | 0.003* |
| | Individual Sports | 14.20 | 4.36 | | |
| Total scale | Team Sports | 62.19 | 11.54 | 4653.0 | 0.000* |
| | Individual Sports | 54.96 | 14.88 | | |

the significant differences found were due to the female participants. When the results are evaluated, it can be thought that female participants may misinterpret themselves in their self-talk about their social environment and based on this situation, they evaluate themselves negatively in their self-criticisms.

As a result of the analysis made between the level of doing sports and self-talk scale, significant differences were found between the sub-dimension of "self-criticism" and level of doing sports, and it was determined that these differences were due to professional athletes. This situation may reveal the conclusion that the experienced professional athletes do not make objective evaluations against themselves.

According to the statistical results related to the branch variant of the study, significant differences were obtained between the branch and self-talk scale in terms of "social

evaluation", "self-criticism", "self-management" sub-dimensions and total scale. It was concluded that the significant differences obtained were due to the athletes interested in team sports. Considering the results of Table (6), it can be said that the participants who are interested in individual sports have a positive attitude towards themselves and environment.

When the results of the variant and self-talk scale are evaluated, it was found that there were significant differences between all variants (regardless of the level) and "self-criticism" sub-dimension. Another sub-dimension following this was determined as "social evaluation". When the results are evaluated in general, we can argue that self-criticism values of the athletes during their self-talk are low.

In their books, Bayraktar and Kurtoğlu (2004) argued that it is necessary to perform physical and mental

trainings in the most accurate and sufficient way as well as the technical and tactical exercises in order to achieve the highest level of performance in sports. Therefore, it is very important for success to know the response and of our body to the exercise, the adaptation and the harm the exercise causes, the way our body moves, the impact of our brain and neural system on the incidents and to determine the social and psychological state of the athlete. In the light of the mentioned scientific disciplines, the most effective motivating external stimuli such as economic sufficiency, adequate sleep, proper nutrition, proper body care, adequate breathing-spaces, proper evaluation of leisure times, suitable home conditions, positive habits, regular climatic conditions, suitable training material, suitable ground, satisfaction, balanced sex life, advanced flexibility, good warm-up, physical and mental training programs special technical and tactical exercises will maximize the performance of sports and therefore the success. The most important stage of the mental training mentioned in the study is the process when the person we worked on makes self-talk. Thanks to self-talk, the athlete can influence his or her motor skill performance positively or negatively. This result shows that the studies are parallel to each other. According to Turhan (2009), motivation is a basic psychological process and a broad concept that includes the wishes, desires, needs and interests (Cüceloğlu, 1991). In general, motivation is a situation involving both biological and physiological and cultural contents that push the human organism into behavior, that determine the level of violence and energy of the behavior, that give a certain direction to the behavior and that cover the functioning of these, together with various internal and external reasons ensuring the continuation of these (Yavilioğlu, 2000). This enables the self-talk to be an effective method in revealing the emotional and behavioral values, and many articles in the self-talk scale are examples to the explanations. For instance, Doğan (2005) stated that the internal motivation arises from the athlete himself/herself. He states the impact of self-motivation on sports by arguing that the athletes with a high level of internal motivation have a great eager to learn more information and ability, to become more successful, to provide more satisfaction and they do not have to be motivated or forced specifically for their work. All this information is a respond to the main purpose of our study.

In the study, Tod et al. (2011) conducted for a systematic perspective to the effect of self-talk on athletes, they worked with a total of 2,113 people with an average age of 19. The researchers concluded that self-talk has positive impacts in sports in terms of performance, motivation and educational aspects. However, Bull et al. (1996) suggested that the negative self-talk cannot have detrimental impact on motor skill performance. The Results of our study and the above-mentioned statement show compatibility.

The impact of self-talk on internal and external

motivation was mentioned in the introduction. Therefore, "social evaluation" and "self-criticism" sub-dimensions of self-talk scale allows us to evaluate the internal and external motivation of the individual. While Turkey and Sökmen (2014) did not find any difference between the internal and external motivation and the gender variant in their study they conducted on motivation in sports, significant differences in the results of our study were found in the social environment and self-evaluation dimension in female athletes.

Hardy et al. (2001) stated that athletes facing difficult situations need self-talk in order to increase their current abilities and confidence. This result is an explanation for the self-reinforcement sub-dimension of our study to be evaluated with a high score by all participants.

As a result of their two phased on pre-performance negative self-talk, study Hatzigeorgiadis and Biddle (2008) concluded that there was no significant difference between female and male individuals in terms of pre-performance self-talk, negative self-talk has no distinctive features based on genders. Looking at the impact of self-talk on the gender variant in our study, a significant difference was found in "self-criticism" dimension of female athletes.

In a study on team athletes (basketball) with an average age of 12, examining the impact of self-talk on performance and emotions, Perkos et al. (2002) applied pre-test and post-test on dribbling, passing shooting and they could not find any significant differences between the data they obtained. In other words, the impact of self-talk on motor skills was not found as a result of the research. In the research we conducted separate from this study, significant differences were found in social evaluation, self-criticism, self-management and total scales which are the sub-dimensions of self-talk scale athletes interested in team sports.

In the study to investigate the impact of self-talk on jumping performance, Goudas et al. (2006) found that there were significant differences in the impact of self-talk on motivational learning and kinesthetic. Additionally, there was a significant difference between the concentration of the participants, and significant differences were also found between self-talk and feeling stronger. When the results of the study are analyzed, it is stated that the athletes who are experienced in self-talk can affect their motivation and emotions more with this method. A statistically significant relation was found between the level of doing sports which is another variant of our study and the self-criticism scale. This relationship stems from the experienced, in other words, professional athletes.

Van Raalte et al. (2000) found that tennis players who show behavior of losing (tennis points lost) tend to use negative self-talk after losing points. In other words, it was observed that the player had a negative reaction (bad hit) to an emotional reaction at the of a weak tennis hit. This may cause a different approach which leads to

the loss of subsequent games (Zourbanos et al., 2015). Kross et al. (2014) and Senay et al. (2010) compared the interrogatory self-talk (“will I be able to do it?”) and the self-talk that will show its effects in the future (“I will do it”) and as a result of this interrogation strategy, they found it that lead to superior task performance. This effect was also repeated with the study conducted by Puchalska-Wasył (2014). Patrick and Hagtvedt (2012) compared the effects of rejection strategies that include the words “I don’t” and “I can’t” and found that the use of “I don’t” leads to a more positive behavioral change than “I can’t”. No significant difference was found on any variant in “self-reinforcement” sub-dimension which is the value that we will compare between researchers’ studies and our own study.

When the studies on the effects of self-talk on performance are examined, different findings on the same variants were found. While a significant difference between gender and age variant were not found on some studies, significant differences, especially in qualities of women’s self-talk were found on some studies. The number of studies compared is almost equal, and the other variants (age, branch, level, etc.) are the same as in the example of gender. From this point of view, it becomes important to conduct self-talk studies as a deeper research and to evaluate them by making examinations on differences, if any, as a result of literature reviews.

CONCLUSION AND SUGGESTIONS

According to Zourbanos et al. (2009), research on self-talk helps us understand the internal world of athletes during the competition and the role of their thoughts during the performance of the individual. It can also help athletes, coaches and sports psychologists evaluate the thoughts of more sensitive athletes and make it easier to develop and apply effective self-talk plans for athletes.

In this study, in which we examined the impact of self-talk on motivation, emotions and performance of the athletes by using different variants, comparisons with many studies in the literature were made and trying to explain how athletes evaluate themselves by using self-talk. Based on the interpretation of the gleaned data, it has been concluded that female athletes and professional athletes are less objective about their self-criticism, that self-evaluation scores of the athletes doing individual sports are higher and that the athletes between the age of 15-25 do not accurately reflect themselves during self-evaluation due to various reasons. The fact that many comments can be made on the results obtained enables the study to be conducted with a wider aspect.

The evaluations of adult individuals during self-talk can be directly proportional to experience and learning since the athletes in this age group scored themselves as compatible and sufficient in all sub-dimensions. The

reason for the individuals who are interested in individual sports to rate their own evaluations higher may stem from the fact that their mental and physical training related to their branches directly concern them. At the level of doing sports, which is another variant, significant differences in the sub-dimension of “self-criticism” which stems from the professional athletes are revealed. It can be thought as the reason for this is that they take an idealist approach in the hope of seeing themselves better in their careers.

After the examination of many studies in literature, their major findings indicate that self-talk, has a positive impact on motivation, learning, kinesthetic, emotion control and feeling better and stronger. There are also studies suggesting that it does not affect the articles stated as opposed to this, and concluding that negative talk has no impact on these articles.

Suggestions to researchers for further research on self-talk, self-evaluation or similar subjects include the following:

- More comprehensive findings can be achieved by conducting a self-talk scale and focus group interviews,
- Research on self-criticism competence can be conducted on female athletes,
- Self-talk of professional athletes before, during and after the performance can be analyzed,
- The impacts of self-talk on performance can be evaluated in each age group and each branch separately,
- It can be seen that self-talk has revealed more successful results on athletes who have used this method before and therefore, studies on teaching and practicing self-talk method in athletes can be done.

REFERENCES

- Aitchison, C., Turner, L., Ansley, L., Thompson, K., Micklewright, D., and St Clair Gibson, A. (2013). Inner dialogue and its relationship to perceived exertion during different running intensities. *Perceptual and Motor Skills*, 117: 11-30.
- Akın, A., Abacı, R., and Dönmezoğulları, C. (2010). Öz-konuşma ölçeği türkçe formunun geçerlik ve güvenilirliği. II. Uluslararası Türkiye Eğitim Araştırmaları Kongresi Kitabı, 1191-1200.
- Andersen, M. B. (2009). The “canon” of psychological skills training for enhancing performance. In K. F. Hays (Ed.), *Performance psychology in action: A casebook for working with athletes, performing artists, business leaders, and professionals in high-risk occupations* (pp. 11-34). Washington, DC: American Psychological Association.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Baumeister, R. F., and Heatherton, T. F. (1996). Self-regulation failure: An overview. *Psychological Inquiry*, 7: 1–15.
- Bayraktar, B., and Kurtoğlu, M. (2004). Sporda performans ve performans artırma yöntemleri. Atasüt, Yücesir İ, eds. *Doping ve futbolda performans artırma yöntemleri*. İstanbul. 269-296.
- Berk, L. E. (1992). Children’s private speech: An overview of theory and the status of research. In R. M. Diaz & L. E. Berk (Eds.), *Private speech: From social interaction to self regulation* (s. 17– 53). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Blanchfield, A. W., Hardy, J., de Morree, H. M., Staiano, W., and Marcora, S. M. (2014). Talking yourself out of exhaustion: The effects of self-talk on endurance performance. *Journal of Medicine Science, Sports, and Exercise*, 46: 998-1007.

- Brinthaupt, T. M., Hein, M. B., and Kramer, T. E. (2009).** The self-talk scale: Development, factor analysis, and validation. *Journal of Personality Assessment*, 91: 82–92.
- Bull, S. J., Albinson, J. G., and Shambrook, C. J. (1996).** The mental game plan: Getting psyched for sport. Eastbourne, UK: Sports Dynamics.
- Carver, C. S., and Scheier, M. F. (1998).** On the self-regulation of behavior. New York: Cambridge University Press.
- Cüceloğlu, D. (1991).** İnsan ve Davranışı, Remzi Kitabevi. İstanbul.
- Diaz, R. M. (1999).** Methodological concerns in the study of private speech. In P. Lloyd & C. Fernyhough (Eds.). *Lev Vygotsky: Critical assessments: Thought and language*, Vol. II. (pp. 343-370). Florence, KY: Taylor & Francis/Routledge.
- Diaz, R. M., and Berk, L. E. (1992).** Private speech: From social interaction to self-regulation. Hillsdale, NJ: Lawrence Erlbaum Associates
- Doğan, O. (2005).** Spor Psikolojisi, Nobel Kitabevi, Adana, s:162.
- Fields, C. (2002).** Why do we talk to ourselves? *Journal of Experimental and Theoretical Artificial Intelligence*, 14: 255–272.
- Goudas, M., Hatzidimitriou, V., and Kikidi, M. (2006).** The effects of self-talk on throwing- and jumping-events performance. *Hellenic Journal of Psychology*, 3: 105-116.
- Hardy, J. (2006).** Speaking clearly: A critical review of the self-talk literature. *Psychology of Sport and Exercise*, 7: 81–97.
- Hardy, J., Gammage, K., and Hall, C.R. (2001).** A descriptive study of athletes self-talk. *The Sport Psychologist*, 15: 306–318.
- Hatzigeorgiadis, A., and Biddle, S. J. H. (2008).** Negative self-talk during sport performance: Relationships with pre-competition anxiety and goal-performance discrepancies. *Journal of Sport Behavior*, 31(3): 237-253.
- Hatzigeorgiadis, A., Zourbanos, N., Galanis, E., and Theodorakis, Y. (2011).** Self-talk and sport performance: A meta-analysis. *Perspectives on Psychological Science*, 6: 354-362.
- Hurlburt, R. T., Heavey, C. L., and Kelsey, J. M. (2013).** Toward a phenomenology of inner speaking. *Consciousness and Cognition*, 22: 1477-1494.
- Jaynes, J. (1976).** The origin of consciousness in the breakdown of the bicameral mind. Boston: Houghton Mifflin.
- Kendall, P. C., and Hollon, S. D. (1989).** Anxious self-talk: Development of the Anxious Self Statements Questionnaire (ASSQ). *Cognitive Therapy and Research*, 13: 81–93.
- Kross, E., Bruehlman-Senecal, E., Park, J., Burson, A., Dougherty, A., Shablack, H., Bremner, R., Moser, J., and Ayduk, O. (2014).** Self-talk as a regulatory mechanism: How you do it matters. *Journal of Personality and Social Psychology*, 106: 304-324.
- Larrain, A., and Hays, A. (2012).** The discursive nature of inner speech. *Theory and Psychology*, 22: 3-22.
- Lyons, W. (1986).** The disappearance of introspection. Cambridge, MA: MIT Press.
- MacKay, D. G. (1992).** Constraints on theories of inner speech. In D. Reisberg (Ed.), *Auditory imagery* (s. 121–149). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Mischel, W., Cantor, N., and Feldman, S. (1996).** Principles of self-regulation: The nature of willpower and self-control. In E. T. Higgins & A.W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (s. 329–360). New York: Guilford.
- Morin, A. (1993).** Self-talk and self-awareness: On the nature of the relation. *Journal of Mind and Behavior*, 14: 223–234.
- Patrick, V. M., and Hagtvedt, H. (2012).** “I don’t” versus “I can’t”: When empowered refusal motivates goal-directed behavior, *Journal of Consumer Research*, 39: 371-381.
- Perkos, S., Chroni, S., and Theodorakis, Y. (2002).** Enhancing performance and skill acquisition in novice basketball players with instructional ST. *The Sport Psychologist*, 16: 368-383.
- Puchalska-Wasył, M. M. (2014).** When interrogative self-talk improves task performance: The role of answers to self-posed questions. *Applied Cognitive Psychology*, 28: 374-381.
- Schwartz, R. M., and Garamoni, G. L. (1989).** Cognitive balance and psychopathology: Evaluation of an information processing model of positive and negative states of mind. *Clinical Psychology Review*, 9: 271–294.
- Senay, I., Albarracín, D., and Noguchi, K. (2010).** Motivating goal-directed behavior through introspective self-talk: The role of the interrogative form of simple future tense. *Psychological Science*, 21: 499-504.
- Son, V., Jackson, B., Grove, J. R., and Feltz, D. L. (2011).** “I am” versus “we are”: Effects of distinctive variants of self-talk on efficacy beliefs and motor performance. *Journal of Sports Sciences*, 29: 1417–1424.
- Theodorakis, Y., Hatzigeorgiadis, A., and Zourbanos, N. (2012).** Cognitions: Self-talk and performance. In S. Murphy (Ed). *The Oxford handbook of sport and performance psychology* (pp. 191-212). New York: Oxford University Press.
- Tod, D., Hardy, J., and Oliver, E. (2011).** Effects of Self-Talk: A Systematic Review. *Journal of Sport & Exercise Psychology*, 33: S666-S687.
- Turhan, M. (2009).** Profesyonel Futbolcularda Depresyon Düzeyi, Anksiyete Düzeyi Ve Kişilik Özellikleri ile Sporda Başarı Motivasyonu Arasındaki İlişkinin İncelenmesi. İstanbul Maltepe Üniversitesi Sosyal Bilimler Enstitüsü Psikoloji Bölümü, Klinik Psikoloji Yüksek Lisans Tezi. İstanbul.
- Turkay, H. Sökmen, T. (2014).** Beden Eğitimi ve Spor Bölümü Öğrencilerinin Sporda Güdülenme Kaynakları ve Stresle Başa Çıkma Tarzları. İnönü Üniversitesi Beden Eğitimi ve Spor Bilimleri Dergisi, 1(3): 1-9.
- Van Raalte, J. L., Brennan Morrey, R., Cornelius, A. E., and Brewer, B. W. (2015).** Maraton koşucularının kendi kendine konuşması. *Spor Psikoloğu*, 29 , 258–260.
- Van Raalte, J. L., Brewer, B. W., Cornelius, A. E., and Petitpas, A. J. (2006).** Kendi kendine konuşmanın tenis oyuncularının algıları üzerindeki etkisi. *Hellenic Journal of Psychology*, 3, 134–149.
- Van Raalte, J. L., Lewis, B. P., Linder, D. E., Wildman, G., and Kozimor, J. (1995).** Mantar! Olumlu ve olumsuz kendi kendine konuşmanın ok atma performansı üzerindeki etkileri. *Spor Davranışı Dergisi*, 18: 50–57.
- Van Raalte, J.L. Cornelius, A.E., Hatten, S. J., and Brewer, B. W. (2000).** The antecedents and consequences of self-talk in competitive tennis. *Journal of Sport and Exercise Psychology*, 22: 345-356.
- Yavilioğlu, C. (2000).** Ekonomik Kalkınma ve Motivasyon Arasındaki İlişki. *C.Ü. İktisadi Ve İdari Bilimler Dergisi*(2)2. Sivas.
- Zourbanos, N., Hatzigeorgiadis, A., Chroni, S., Theodorakis, Y., and Papaioannou, A. (2009).** Automatic Self-Talk Questionnaire for Sports (ASTQS): Development and preliminary validation of a measure identifying the structure of athletes’ self-talk. *The Sport Psychologist*, 23: 233-251.
- Zourbanos, N., Tzioumakis, Y., Araújo, D., Kalaroglou, S., Hatzigeorgiadis, A., Papaioannou, A., and Theodorakis, Y. (2015).** The intricacies of verbalizations, gestures, and game outcome using sequential analysis. *Psychology of Sport and Exercise*, 18: 32-41.

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