

The Effect of Imagery Use on the Self-Confidence: Turkish Professional Football Players

Ilımdar Yalcin¹ and Fikret Ramazanoglu²

Abstract

The aim of this study was to determine the effect of imagery use by the professional football players in Turkey on their self-confidence levels. The study group comprised of 423 professional football players from 24 football clubs from different leagues in 2016-2017 season, Turkey. As data collection tools, in addition to the personal information form, “Sports Imagery Questionnaire” developed by Hall et al. (1998), adapted to Turkish by Vurgun (2010) and “Self-Confidence Scale” developed by Akin (2007) were used. Results showed a positive correlation between internal and external self-confidence and all sub-scales of imagery in the professional football players. Moreover, the cognitive general imagery, cognitive specific imagery, and motivational specific imagery predicted 21.4% of the internal self-confidence. Similarly, the cognitive general imagery and motivational specific imagery predicted 17.7% of external self-confidence for the professional football players. Finally, it was determined that the professional football players’ self-confidence levels will increase as the level of imagery use increases.

Keywords: professional football player; imagery; self-confidence.

Introduction

Nowadays, it is known that sportive performance comes into being by integrating with technical, tactical, and motoric skills. The development and interaction of these skills are important for athletes. Athletic coaches and athletes who understand that only physical superiority will not be sufficient, observed that psychological factors also have effects on athletic performance. Especially, imagery practices are frequently used in football. Imagery is a life where real lives are imitated. The imagery includes not only visualization in the mind, but living with all sensory organs (seeing, smelling, hearing, touching, taste) (Hall, 2001).

According to Murphy (1994), mental imagery refers to all those quasi-sensory or quasi-perceptual experiences of which we are self-consciously aware and which exist for us in the absence of those stimulus conditions that are known to produce their genuine sensory or perceptual counterparts. According to another definition, the use of imagery, the use of psychological skills as a training technique means the close relationship between thought and movement (Simon, 2000). Athletes can provide development in both physical and mental skills with imagery. In addition to the physical corrections such as the development of skills learned and correction of errors by imagery use, psychological arrangements such as control of emotions and concentration can also be provided. It is very important for athletes to create positive imagery use in their minds in order to be successful (Kızıldağ, 2007).

Moreover, many studies especially about football have reported that the use of imagery in sportive performance has a great importance (Hall and Haslam, 1994; Callery and Morris, 1997; Salmon et al., 2005; Grushko et al., 2016; Pocock et al., 2017, De Sousa Fortes et al., 2019).

In football, players may be face a difficult technique during the game. In this case, imagery practice can be used in the learning process of football skills so as to transform the movements into motor skills, to develop strategies according to game difficulty, to improve performance, to know how to behave against a challenging opponent and to control emotions about sportive performance, to manage the game outside the field to prevent disability and accelerate the healing process.

For this reasons, psychological preparation should not be ignored when creating an effective preparatory program for football players. Besides the positive benefits of imagery practice, another psychological factor that plays an important role in the development of sportive performance is self-confidence.

Self-confidence plays an active role on the mental status of athletes and it can change the reactions encountered by the athletes in training and competitions (Hanton et al., 2004). Self-confidence just as imagery use is an important factor for the football. Self-confidence is an important factor that positively affects the thoughts and emotions of football players. Moreover, self-confidence can provide the football players to focus on the goal by activating the belief

1 School of Physical Education and Sports, Bingol University, Bingol, Turkey. Ph. D. Ilımdar YALCIN, Phone: +90 (546) 4240023 Fax: +90 (426) 2160090, Zip Code: 12000, E-mail: ilimdaryalcin@gmail.com

2 Faculty of Sports Sciences, Sakarya University of Applied Sciences, Sakarya, Turkey.

of success. In this context, self-confidence in football can be thought as a mental preparation as well as being the key to achieving excitement, desire, and goal.

When the relationship between imagery and self-confidence is examined, it has been reported in many studies that these factors play an important role in the performances of athletes (Mattie and Munroe-Chandler, 2012; Munroe et al., 2000; Weinberg et al., 2003; Callow et al., 2001; Mamassis and Doganis, 2004). It is thought that the use of imagery during sporting activities will contribute positively to the physical and mental performance of football players and increase the self-confidence levels. Although there were many studies reporting that imagery and self-confidence contribute to the mental and physical development of the athletes in many sports branches including football (Short and Short, 2005; Munroe-Chandler et al., 2008; Adegbesan, 2010), it could not be founded a study investigating the size of the effects of the imagery use on self-confidence levels. The hypotheses of the present study are as follows:

H₁: There is a relationship between self-confidence and imagery use levels of Turkish professional football players.

H₂: There is a statistically significant difference between the imagery use and self confidence levels of Turkish professional football players according to league levels.

H₃: The use of imagery of Turkish professional football players has an effect on their self-confidence levels.

In this context, the aim of the present study was to determine the effect of imagery use by the professional football players in Turkey on their self-confidence levels.

Method

Participants

In this study, 423 professional football players, who played in 24 clubs including 6 teams from each league category (Super, 1st, 2nd, and 3rd leagues) in 2016-2017 Turkey football season, have taken part in the study voluntarily.

Table 1
Frequency and Percentage Distributions of Professional Football Team Categories

| Category | Team | n | % |
|--------------|----------------------|----|-------|
| Super League | Beşiktaş | 14 | 15.1 |
| | Fenerbahçe | 17 | 18.3 |
| | Trabzonspor | 16 | 17.2 |
| | Medipol Başakşehir | 16 | 17.2 |
| | Kayserispor | 16 | 17.2 |
| | Kardemir Karabükspor | 14 | 15.1 |
| | Total | 93 | 100.0 |

| Category | Team | n | % |
|------------------------|---|-----|-------|
| 1 st League | Elazığspor | 18 | 17.8 |
| | Sivasspor | 16 | 15.8 |
| | Evgür Yeni Malatyaspor | 17 | 16.8 |
| | Balıkesirspor | 17 | 16.8 |
| | Ümraniyespor | 17 | 16.8 |
| | Gaziantep Büyükşehir Belediyespor | 16 | 15.8 |
| | Total | 101 | 100.0 |
| 2 nd League | Keçiörengücü | 17 | 15.5 |
| | Kocaeli Birlirlikspor | 20 | 18.2 |
| | Hacettepespor | 21 | 19.1 |
| | Büyükşehir Belediye Erzurumspor | 15 | 13.6 |
| | Konya Anadolu Selçukspor | 18 | 16.4 |
| | Amed Sportif Faaliyetler | 19 | 17.3 |
| | Total | 110 | 100.0 |
| 3 rd League | Sakaryaspor | 19 | 16.0 |
| | 12 Bingölspor | 19 | 16.0 |
| | Van Büyükşehir Belediyespor | 23 | 19.3 |
| | Bayburt Grup Özel İdare Gençlik ve Spor | 20 | 16.8 |
| | Elaziz Belediyespor | 19 | 16.0 |
| | Kütahyaspor | 19 | 16.0 |
| | Total | 119 | 100.0 |

Table 1 gives information about frequency and percentage distributions of the professional football players according to the league levels and teams.

Measures

Sports Imagery Questionnaire

The Sports Imagery Questionnaire was developed by Hall et al. (1998) and adapted to Turkish by Vurgun (2010). The scale consists of 5 sub-dimensions and a total of 30 items. Each sub-dimension consists of 6 items and the scale was 7 point likert type from 1 (rarely) to 7 (frequently). The overall Cronbach's alpha for the scale was set at .93. When the sub-dimensions were examined; for cognitive general imagery, cognitive specific imagery, motivational general arousal, motivational general mastery, motivational specific

imagery, Cronbach's alpha values were determined as .88, .88, .83, .85, .91, respectively. For the present research, the overall Cronbach's alpha value of the scale was set at .92 and for the sub-dimensions of scale .70 to 90.

Self-Confidence Questionnaire

The self-confidence scale was developed by Akın (2007) in the Turkish language. The scale consists of 33 items and two sub-dimensions including internal self-confidence (17 items) and external self-confidence (16 items). The scale was 5 point likert type from 1 (never) to 5 (always). The overall Cronbach's alpha for the scale was set at .83. When the sub-dimensions were examined, Cronbach's alpha value was set at .83 for internal self-confidence and .85 for external confidence. For the present study, Cronbach's alpha value of the self-confidence scale was set at .90 and for internal and external self-confidence were set at .87.

Procedure

In the collection of data, the convenience sampling method was used. All football players were informed about the research procedures, purposes of the investigation, and given their written consent prior to participation. The scales were applied using face to face questionnaire technique by

the researcher. The data was collected from players on non-training days.

Data Analysis

SPSS package program was used for analyzing the data. Skewness and Kurtosis values were checked for the normality test of data. In the analysis of normally distributed data, descriptive statistics, Pearson Correlation, Linear Regression, and One-way MANOVA were used. To check the risk of type 1 error Bonferroni correction test was preferred. According to Pallant (2017), .05 value is divided by the number of dependent variables and the new value is considered as a new significance value for the statistically significant difference between groups. For this reason, the value of .007 obtained by dividing .05 by sub-dimensions of 7 dependent variables (internal self-confidence, external self-confidence, cognitive general imagery, cognitive specific imagery, motivational general arousal, motivational general mastery, motivational specific imagery) was taken as reference point ($p = .05/7 = .007$). New significance was set at .007 for One-way MANOVA. Additionally significance was set at .05 for correlation and linear regression analysis.

Results

Table 2

Pearson Correlation Analysis Results regarding to the Imagery and Self-Confidence Sub-Dimensions

| Sub-dimensions | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----------------------------------|---|--------|--------|--------|--------|--------|--------|---|
| Internal Self-Confidence (1) | r | 1 | | | | | | |
| | p | | | | | | | |
| External Self-Confidence (2) | r | .862** | 1 | | | | | |
| | p | .000 | | | | | | |
| Motivational Specific Imagery (3) | r | .397** | .354** | 1 | | | | |
| | p | .000 | .000 | | | | | |
| Cognitive Specific Imagery (4) | r | .417** | .359** | .683** | 1 | | | |
| | p | .000 | .000 | .000 | | | | |
| Cognitive General Imagery (5) | r | .431** | .409** | .655** | .718** | 1 | | |
| | p | .000 | .000 | .000 | .000 | | | |
| Motivational General Arousal (6) | r | .330** | .300** | .700** | .654** | .602** | 1 | |
| | p | .000 | .000 | .000 | .000 | .000 | | |
| Motivational General Mastery (7) | r | .410** | .382** | .662** | .670** | .756** | .565** | 1 |
| | p | .000 | .000 | .000 | .000 | .000 | .000 | |

Note. $n = 423$; ** $p < .01$

When Table 2 was examined, it was determined that there was a positive relationship between internal and external self-confidence sub-dimensions and all sub-dimensions (motivational specific imagery, cognitive

specific imagery, cognitive general imagery, motivational general arousal, and motivational general mastery) of imagery ($p < .01$).

Table 3
Results of the One-way MANOVA according to the League Levels

| Dependent Variable | League Level | n | \bar{x} | SD | F | p | η^2 |
|-------------------------------|--------------------------------------|-----|-----------|------|------|-------|----------|
| Internal Self-Confidence | Super League ^a | 93 | 4.09 | .44 | 9.23 | .001* | .062 |
| | 1 st League ^a | 101 | 4.04 | .60 | | | |
| | 2 nd League ^b | 110 | 3.73 | .57 | | | |
| | 3 rd League ^a | 119 | 4.01 | .59 | | | |
| External Self-Confidence | Super League ^a | 93 | 4.11 | .45 | 7.92 | .001* | .054 |
| | 1 st League ^a | 101 | 4.03 | .62 | | | |
| | 2 nd League ^b | 110 | 3.74 | .55 | | | |
| | 3 rd League ^{ab} | 119 | 3.93 | .65 | | | |
| Motivational Specific Imagery | Super League | 93 | 5.11 | 1.27 | 2.60 | .052 | .018 |
| | 1 st League | 101 | 4.99 | 1.38 | | | |
| | 2 nd League | 110 | 4.60 | 1.37 | | | |
| | 3 rd League | 119 | 4.84 | 1.53 | | | |
| Cognitive Specific Imagery | Super League | 93 | 5.14 | 1.22 | 2.80 | .040 | .020 |
| | 1 st League | 101 | 5.07 | 1.26 | | | |
| | 2 nd League | 110 | 4.72 | 1.13 | | | |
| | 3 rd League | 119 | 4.79 | 1.40 | | | |
| Cognitive General Imagery | Super League | 93 | 5.31 | 1.23 | 2.85 | .037 | .020 |
| | 1 st League | 101 | 5.08 | 1.26 | | | |
| | 2 nd League | 110 | 4.83 | 1.12 | | | |
| | 3 rd League | 119 | 4.87 | 1.54 | | | |
| Motivational General Arousal | Super League | 93 | 4.72 | 1.12 | 1.18 | .316 | .008 |
| | 1 st League | 101 | 4.93 | 1.27 | | | |
| | 2 nd League | 110 | 4.67 | 1.08 | | | |
| | 3 rd League | 119 | 4.64 | 1.40 | | | |
| Motivational General Mastery | Super League ^a | 93 | 5.52 | 1.16 | 5.07 | .002* | .035 |
| | 1 st League ^a | 101 | 5.34 | 1.19 | | | |
| | 2 nd League ^b | 110 | 4.88 | 1.23 | | | |
| | 3 rd League ^a | 119 | 5.07 | 1.44 | | | |

Wilks' Lambda $\lambda = .878$; $F(3.419) = 2.611$; $p = .001$; $\eta^2 = .042$.

SD: Standard Deviation; ab: the different letters represent the difference between the groups.

Note. * $p < .007$

According to Table 3, it was determined that there was a significant difference between internal self-confidence, external self-confidence, and motivational general mastery according to the league categories of professional football players (Wilks' Lambda $\lambda = .878$; $F(3,419) = 2.611$; $p = .001$; $\eta^2 = .042$). When the differences of the self-confidence and imagery use levels of the professional football players according to league levels were examined, it was

determined that there was a difference between 2nd league football players and super league, 1st league, and 3rd league football players in the level of internal self-confidence and the motivational general mastery. Moreover, there was a difference between 2nd league professional football players and super league, and 1st league professional football players in the level of external self-confidence.

Table 4

Linear Regression Analysis Results regarding to the Internal Self-Confidence Sub-Dimension

| Model | B | Standard Error | β | t | p | Tolerance | VIF |
|-------------------------------|-------|----------------|---------|--------|------|-----------|-------|
| (Constant) | 2.836 | .107 | | 26.483 | .000 | | |
| Cognitive General Imagery | .097 | .029 | .223 | 3.396 | .001 | .434 | 2.304 |
| Cognitive Specific Imagery | .073 | .031 | .161 | 2.379 | .018 | .406 | 2.465 |
| Motivational Specific Imagery | .058 | .026 | .141 | 2.262 | .024 | .477 | 2.096 |

$F_{(3,419)} = 39.235^{**}$; $R^2_{corrected} = .214$; $R^2 = .219$; $**p < .01$

Note. Dependent Variable: Internal Self-Confidence. Method: Stepwise

According to the results of linear regression analysis, it was determined that the level of cognitive general imagery, cognitive specific imagery, and motivational specific imagery predicted the internal self-confidence level of professional football players at the rate of 21.4% ($F_{(3,419)} =$

39.235; $p < .01$). Accordingly, it was found that the highest effect on the change of internal self-confidence was caused by cognitive general imagery ($\beta = .223$; $p < .01$), cognitive specific imagery ($\beta = .161$; $p < .05$), and motivational specific imagery ($\beta = .141$; $p < .05$), respectively.

Table 5

Linear Regression Analysis Results regarding to the External Self-Confidence Sub-Dimension

| Model | B | Standard Error | β | t | p | Tolerance | VIF |
|-------------------------------|-------|----------------|---------|--------|------|-----------|-------|
| (Constant) | 2.938 | .108 | | 27.161 | .000 | | |
| Cognitive General Imagery | .140 | .026 | .311 | 5.313 | .000 | .571 | 1.753 |
| Motivational Specific Imagery | .063 | .025 | .151 | 2.577 | .010 | .571 | 1.753 |

$F_{(2,420)} = 46.291^{**}$; $R^2_{corrected} = .177$; $R^2 = .181$; $**p < .01$

Note. Dependent Variable: External Self-Confidence. Method: Stepwise

According to the results of linear regression analysis, it was determined that the level of cognitive general imagery and motivational specific imagery predicted the external self-confidence level of professional football players at the rate of 17.7% ($F_{(2,420)} = 46.291$, $p < .01$). Accordingly, it was found that the highest effect on the change of internal self-confidence was caused by cognitive general imagery ($\beta = .311$; $p < .01$) and motivational specific imagery ($\beta = .151$; $p < .01$), respectively.

Discussion

The primary purpose of the present study was to determine the relationship between imagery use and self-confidence levels of professional football players in different Leagues in Turkey. According to the research results, there was a statistically significant difference between internal and external self-confidence and motivational general mastery according to the league category of professional football players. It was determined that the internal and external self-confidence and motivational general mastery levels of

the professional football players in the upper leagues were higher than others. According to this situation it can be thought that the higher the league status in football, the higher the budgets of the teams, accordingly administrators of the football teams can provide the more professional teams (sports psychologist, nutritionist, mentor, etc.) and equipment (facility, training equipment and performance measuring devices, etc.) to the football players.

In the literature, many studies have reported that there is no difference between self-confidence levels of athletes in different leagues (Bozkurt et al., 2012; Golby and Sheard, 2004). Moreover, Kolayış and Çelik (2017) have reported that there is no difference between the imagery levels of the football players in different leagues. In contrast, Jordet (2005) found that imagery studies in professional leagues positively affect the components of perception.

The main purpose of the current study was to determine whether the imagery use effects the football players' self-confidence levels according to their league status. According to the results of regression analysis on internal self-confidence, it was found that cognitive general imagery, cognitive specific imagery, and motivational specific imagination predicted internal self-confidence by approximately 22%. It is thought that the athletes will be able to apply skills correctly and perfectly with cognitive and motivational imagery, develop strategies, correct the mistakes in the direction of the correction of the target become clear and having positive thoughts contribute to increasing their internal self-confidence. In addition, the positive manifestation of the spectator during the competition or training, the positive approaches of the coaches, the support of sports psychologists, communication with teammates and increasing career satisfaction are thought to contribute to the internal self-confidence of the athletes. When the results of the regression analysis of external self-confidence were examined, it was seen that cognitive general imagery and motivational specific imagery predicted external self-confidence by approximately 18%. It is thought that athletes' learning and application of a game plan in a good way by using motivational and cognitive imagery, their congratulation by their fans and teammates due to their good performances and presenting themselves in line with the pleasure they win by winning the competitions they participate will contribute to the external self-confidence. In addition, being aware of their individual abilities and having self-efficacy, being a loved individual in the community, controlling their emotions, making a personal assessment, having the ability to express themselves well are the factors that thought to improve the external self-confidence of the athletes. According to these results, it is thought that the imagination increases the self-confidence and the motivations of the athletes with increasing self-confidence will increase in the strategies and performances within the game.

In the literature, many studies supported the results of the current research. Callow and Hardy (2001) have reported that there was a relationship between sportive self-confidence and imagery levels of netball players. Vadoa et al., (1997) have reported that there was a relationship between the use of imagery and self-confidence in elite roller-skaters. In addition, in these studies, the use of motivational imagery was associated with self-confidence and the athletes were more self-confident than those using more Motivational General Mastery imagery. In addition, it has been reported that the use of motivational imagery in these studies is related to self-confidence and that those who use more Motivational General Mastery have higher self-confidence. Guerrero, Hoffmann and Munroe-Chandler (2016) also found a positive relationship between self-esteem and imagery.

Murphy (1994) reported that using negative images in imagination training interfered with the personal motor program of the athletes, caused a decrease in performance, and negatively affected the motivation, self-confidence, and concentration. Short et al. (2002) found that imagery skills increase self-confidence. Callow and Waters (2005) concluded that kinesthetic imagery has developed self-confidence in sport. Ramezani et al. (2009) observed that the use of imagery in professional and amateur volleyball players increases the individual skills and self-confidence of the players. Murphy (2005) conducted a study of three elite badminton players at the University of Wales to study the effect of imagery on self-confidence, revealed that two players have increased self-confidence.

As a result, it was observed that there was a positive effect between the imagery levels of the professional football players and their internal (22~ %) and external (18~ %) self-confidence levels. Moreover, it was determined that the self-confidence levels of football players increased as their imagination levels increased. Depending on these results, it is recommended that sports psychologists should give importance to imagination training before, during and after the competition in order to keep athletes' self-confidence high. In addition, when the positive effect of imagination on football players' self-confidence levels was examined, increasing their use of imagination in both team and individual sports branches will increase the self-confidence levels of athletes. Lastly, this study was limited to 24 teams in the Turkish professional football league and Turkish football players in these teams. The use of imagery in foreign football players in Turkish professional football leagues and in a larger sample in football and/or other sports branches can be investigated.

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El efecto del uso de imágenes en la autoconfianza: jugadores de fútbol profesionales turcos

Resumen

El objetivo de este estudio fue determinar el efecto del uso de imágenes por parte de los futbolistas profesionales en Turquía en sus niveles de confianza en sí mismos. El grupo de estudio estaba compuesto por 423 jugadores profesionales de fútbol de 24 clubes de fútbol de diferentes ligas en la temporada 2016-2017, Turquía. Como herramientas de recopilación de datos, además del formulario de información personal, el "Cuestionario de imágenes deportivas" desarrollado por Hall et al. (1998), adaptado al turco por Vurgun (2010) y "Escala de autoconfianza" desarrollada por Akın (2007). Los resultados mostraron una correlación positiva entre la autoconfianza interna y externa y todas las subescalas de imágenes en los jugadores profesionales de fútbol. Además, las imágenes cognitivas generales, las imágenes cognitivas específicas y las imágenes motivacionales específicas predijeron el 21.4% de la confianza interna. Del mismo modo, las imágenes cognitivas generales y las imágenes específicas de motivación predijeron el 17.7% de la autoconfianza externa para los jugadores profesionales de fútbol. Finalmente, se determinó que los niveles de autoconfianza de los jugadores de fútbol profesional aumentarán a medida que aumente el nivel de uso de imágenes.

Palabras clave: jugador de fútbol profesional; imágenes; auto confianza.

O efeito do uso de imagens na autoconfiança: jogadores de futebol profissional turcos

Resumo

O objetivo deste estudo foi determinar o efeito do uso de imagens pelos jogadores profissionais de futebol da Turquia em seus níveis de autoconfiança. O grupo de estudo foi composto por 423 jogadores profissionais de futebol de 24 clubes de futebol de diferentes ligas na temporada 2016-2017, na Turquia. Como ferramentas de coleta de dados, além do formulário de informações pessoais, o "Sports Imagery Questionnaire", desenvolvido por Hall et al. (1998), adaptado ao turco por Vurgun (2010) e a "escala de autoconfiança" desenvolvida por Akın (2007). Os resultados mostraram uma correlação positiva entre autoconfiança interna e externa e todas as subescalas de imagens dos jogadores profissionais de futebol. Além disso, as imagens cognitivas gerais, imagens cognitivas específicas e imagens motivacionais específicas previam 21,4% da autoconfiança interna. Da mesma forma, as imagens cognitivas gerais e imagens motivacionais específicas previam 17,7% de autoconfiança externa para os jogadores profissionais de futebol. Por fim, foi determinado que os níveis de autoconfiança dos jogadores profissionais de futebol aumentarão à medida que o nível de uso de imagens aumentar.

Keywords: jogador de futebol profissional; imagens; auto confiança.

References

- Adegbesan, O. A. (2010). Analysis of imagery use as predictors of football players' sport confidence. *World Journal of Sport Sciences*, 3(1), 53-58.
- Akın, A. (2007). Öz güven ölçeği'nin geliştirilmesi ve psikometrik özellikleri. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 7(2), 165-175.
- Altunışık, R., Coşkun, R., Bayraktaroğlu, S. and Yıldırım, E. (2012). *Sosyal bilimlerde araştırma yöntemleri: SPSS Uygulamalı*. Sakarya: Sakarya Publishing.
- Başer, E. (1998). *Uygulamalı Spor Psikolojisi*. (3rd ed.) Ankara: Bağırgan Publishing.
- Bozkurt, O., Koruç, Z., Arslan, N. and Kocaekşi, S. (2012). A comparison of football players' sport confidence and self-efficacy beliefs according to their league level in turkey. *Journal of Physical Education and Sports Science*, 6(3), 349-352.
- Büyüköztürk, Ş. (2016). *Sosyal bilimler için veri analizi el kitabı*. (22nd ed.) Ankara: Pegem Akademi Publishing.
- Callery, P. and Morris, T. (1997). The effects of an imagery program on self-efficacy and performance of an Australian Rules Football skill. In *Proceedings of the IX World Congress of Sport Psychology, Netanya, Israel: ISSP* (pp. 175-7).
- Callow, N. and Hardy, L. (2001). Types of imagery associated with sport confidence in netball players of varying skill levels. *Journal of Applied Sport Psychology*, 13(1), 1-17. doi: 10.1080/10413200109339001
- Callow, N. and Waters, A. (2005). The effect of kinesthetic imagery on the sport confidence of flat-race horse jockeys. *Psychology of Sport and Exercise*, 6(4), 443-59. doi: 10.1016/j.psychsport.2004.08.001
- Callow, N., Hardy, L. and Hall, C. (2001). The effects of a motivational general-mastery imagery intervention on the sport confidence of high-level badminton players. *Research Quarterly for Exercise and Sport*, 72(4), 389-400. doi: 10.1080/02701367.2001.10608975
- De Sousa Fortes, L., Sousa Almeida, S., Andrade Nascimento-Júnior, J. R., Fiorese, L., Lima-Júnior, D. and Caputo Ferreira, M. E. (2019). Effect of motor imagery training on tennis service performance in young tennis athletes. *Revista de Psicologia del Deporte*, 28(1), 157-167. https://www.rpd-online.com/article/view/v28-n1-desousa-sousa-andrade-et-al/Desousa_Sousa_Andradeetal
- Eldeleklioğlu, J. (2004). Çocuklarda öz güven gelişimi. *Gazi Üniversitesi, Eğitim Fakültesi Dergisi*, 24(2), 111-121.
- Golby, J. and Sheard, M. (2004). Mental toughness and hardiness at different levels of rugby league. *Personality and Individual Differences*, 37(5), 933-942. doi: 10.1016/j.paid.2003.10.015

- Grushko, A. I., Haidamashko, I. V., Ibragimov, R. R., Kornienko, D. S., Korobeynikova, E. Y., Leonov, S. V. and Veraksa, A. N. (2016). Does the motivation, anxiety and imagery skills contributes to football (soccer) experience?. *Procedia-Social and Behavioral Sciences*, 233, 181-185. doi: 10.1016/j.sbspro.2016.10.189
- Guerrero, M. D., Hoffmann, M. D. and Munroe-Chandler, K. J. (2016). Children's active play imagery and its association with personal and social skills and self-sonfidence. *Journal of Imagery Research in Sport and Physical Activity*, 11(1), 47-57. doi: 10.1515/jirspa-2016-0004
- Hall, C. R. (2001). *Imagery in sport and exercise. handbook of research on sport psychology*. R. N. Singer, H. A. Hausenblas and C. M. Janelle (Eds.) (2nd ed.), New York: Wiley.
- Hall, C. R., Mack, D. E., Paivio, A. and Hausenblas, H. A. (1998). Imagery use by athletes: development of the sport imagery questionnaire. *International Journal of Sport Psychology*, 29(1), 73-89. doi: 10.1037/t52953-000
- Hanton, S., Mellalieu, S. D. and Hall, R. (2004). Self-confidence and anxiety interpretation: a qualitative investigation. *Psychology of Sport and Exercise*, 5(4), 477-495. doi: 10.1016/S1469-0292(03)00040-2
- Jordet, G. (2005). Perceptual training in soccer: an imagery intervention study with elite players. *Journal of Applied Sport Psychology*, 17(2), 140-156. doi: 10.1080/10413200590932452
- Kızıldağ, E. (2007). *Farklı spor branşındaki sporcuların imgeleme biçimleri*. Yüksek Lisans Tezi, Mersin Üniversitesi, Sağlık Bilimleri Enstitüsü.
- Kolayış, H., and Çelik, N. (2017). Examination of motivation, anxiety and imagery levels of footballers from different leagues. *Revista De Psicología Del Deporte*, 26(3), 0023-27. <https://www.redalyc.org/html/2351/235152046005/>
- Kulak, A. (2011). *Zihinsel antrenman yönteminin 10-12 yaş futbolcularda teknik beceri performansına etkisinin incelenmesi*. Yüksek Lisans Tezi, Harran Üniversitesi, Sağlık Bilimleri Enstitüsü.
- Mamassis, G. and Doganis, G. (2004). The effects of a mental training program on juniors pre-competitive anxiety, self-confidence, and tennis performance. *Journal of Applied Sport Psychology*, 16(2), 118-137. doi: 10.1080/10413200490437903
- Mattie, P. and Munroe-Chandler, K. J. (2012). Examining the relationship between mental toughness and imagery Use. *Journal of Applied Sport Psychology*, 24(2), 144-156. doi:10.1080/10413200.2011.605422
- Munroe, K. J., Giacobbi Jr., P. R., Hall, C. R. and Weinberg, R. (2000). The four ws of imagery use: where, when, why, and what. *The Sport Psychologist*, 14(2), 119-137. doi: 10.1123/tsp.14.2.119
- Munroe-Chandler, K. J., Hall, C. R., Fishburne, G. J. and Shannon, V. (2005). Using cognitive general imagery to improve soccer strategies. *European Journal of Sport Science*, 5(1), 41-49. doi: 10.1080/17461390500076592
- Munroe-Chandler, K., Hall, C. and Fishburne, G. (2008). Playing with confidence: The relationship between imagery use and self-confidence and self-efficacy in youth soccer players. *Journal of sports sciences*, 26(14), 1539-1546. doi: 10.1080/02640410802315419
- Murphy, S. (2005). *The Sport psych handbook*. (1st. ed.) USA: Human Kinetics.
- Murphy, S. M. (1994). Imagery interventions in sport. *Medicine Science Sports and Exercise*, 26(4); 486- 494. doi: 10.1249/00005768-199404000-00014
- Pallant, J. (2017). *SPSS Kullanma kılavuzu: SPSS ile adım adım veri analizi*. (trans. S. Balcı ve B. Ahi) Ankara: Anı Publishing.
- Pocock, C., Dicks, M., Thelwell, R. C., Chapman, M. and Barker, J. B. (2017). Using an imagery intervention to train visual exploratory activity in elite academy football players. *Journal of Applied Sport Psychology*, 1-17. doi: 10.1080/10413200.2017.1395929
- Ramzaninezhad, R., Hoseini Keshtan, M., Dadban Shahamat, M. and Shafiee Kordshooli, S. (2009). The relationship between collective efficacy, group cohesion and team performance in professional volleyball teams. *Brazilian Journal of Biomotricity*, 3(1), 3(1), 31-39. <https://www.redalyc.org/html/930/93012686005/>
- Salmon, J., Hall, C. and Haslam, I. (1994). The use of imagery by soccer players. *Journal of Applied Sport Psychology*, 6(1), 116-133. doi: 10.1080/10413209408406469
- Short, S. E. and Short, M. W. (2005). Differences between high-and low-confident football players on imagery functions: A consideration of the athletes' perceptions. *Journal of Applied Sport Psychology*, 17(3), 197-208. doi: 10.1080/10413200591010049
- Short, S. E., Bruggeman, J. M., Engel, S. G., Marback, T. L., Wang, L. J., Willadsen, A. and Short, M. W. (2002). The effect of imagery function and imagery direction on self-efficacy and performance on a golf-putting task. *The Sport Psychologist*, 16(1), 48-67. doi: 10.1123/tsp.16.1.48
- Simons, J. (2000). *Doing imagery in the field. Doing sport psychology*. In M. B. Andersen (Ed.). (1st ed.), 77-92. Champaign, IL: Human Kinetics.
- Vadoa, E. A., Hall, C. R. and Moritz, S. E. (1997). The relationship between competitive anxiety and imagery use. *Journal of Applied Sport Psychology*, 9(2), 241-253. doi: 10.1080/10413209708406485
- Vurgun, N. (2010). *Sporda imgeleme anketinin türkçe'ye uyarlanması ve sporda imgelemenin yarışma kaygısı ile sportif güven üzerindeki etkisi*. Doktora Tezi, Ege Üniversitesi Sağlık Bilimleri Enstitüsü.
- Weinberg, R., Butt, J., Knight, B., Burke, K. L. and Jackson, A. (2003). The relationship between the use and effectiveness of imagery: an exploratory investigation. *Journal of Applied Sport Psychology*, 15(1), 26-40. doi: 10.1080/10413200305398