



Investigation of psychological skills of team athletes

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Abstract

Given the gaps in meeting the psychological needs of team athletes and the importance of psychological skills training, this paper aims to investigate the psychological skills of team athletes. A total of 200 voluntary male and female students from the Faculty of Sport Sciences at Ondokuz Mayıs University participated in the study. The mean age of the students was 21.27 ± 1.82 . In the study, the scale was used to assess the psychological abilities of athletes. The data were analyzed using the SPSS 22 package program. As the data had a normal distribution, the analysis methods Independent Samples T test, Pearson correlation and One Way ANOVA were used. In the sub-dimension "Peaking under pressure", a significant difference was found between the two genders ($p < 0.05$). "Coachability" shows a moderate negative correlation with age ($r = -0.225$), and this relationship is statistically significant ($p = 0.001$). There is no significant difference in other data ($p > 0.05$). The results of this study show that the ability to perform peaking under pressure differs between the sexes. This indicates that men tend to perform better under pressure. The results showed a moderate negative correlation ($r = -0.225$) between the ages of participants and their openness to learning in the "Coachability" sub-dimension of the Scale for the Assessment of Athletes' Psychological Skills. These findings suggest that as age increases, openness to learning decreases among team sports participants.

Keywords: Age, gender, psychological skills, team athletes

Takım sporcularının psikolojik becerilerinin incelenmesi

Öz

Takım sporcularının psikolojik ihtiyaçlarının karşılanmasındaki eksiklikler ve psikolojik beceri eğitiminin önemi göz önüne alındığında, bu çalışma takım sporcularının psikolojik becerilerini araştırmayı amaçlamaktadır. Çalışmaya Ondokuz Mayıs Üniversitesi Spor Bilimleri Fakültesi'nden toplam 200 gönüllü erkek ve kadın öğrenci katılmıştır. Öğrencilerin yaş ortalaması 21.27 ± 1.82 'dir. Çalışmada ölçek, sporcuların psikolojik yeteneklerini değerlendirmek için kullanılmıştır. Veriler SPSS 22 paket programı kullanılarak analiz edilmiştir. Veriler normal dağılıma sahip olduğu için analiz yöntemleri olarak Independent t test, Pearson korelasyon ve One Way ANOVA kullanılmıştır. "Baskı altında zirve yapma" alt boyutunda iki cinsiyet arasında anlamlı bir fark bulunmuştur ($p < 0.05$). "Koçluk yeteneği" yaş ile orta düzeyde negatif bir korelasyon göstermektedir ($r = -0,225$) ve bu ilişki istatistiksel olarak anlamlıdır ($p = 0,001$). Diğer verilerde anlamlı bir farklılık yoktur ($p > 0.05$). Bu çalışmanın sonuçları, baskı altında zirve yapma becerisinin cinsiyetler arasında farklılık gösterdiğini ortaya koymaktadır. Bu da erkeklerin baskı altında daha iyi performans gösterme eğiliminde olduğunu göstermektedir. Sonuçlar, Sporcuların Psikolojik Becerilerini Değerlendirme Ölçeği'nin "Koçluk Yapabilirlik" alt boyutunda katılımcıların yaşları ile öğrenmeye açıklıkları arasında orta düzeyde negatif bir korelasyon ($r = -0,225$) olduğunu göstermiştir. Bu bulgular, yaş arttıkça takım sporu katılımcıları arasında öğrenmeye açıklığın azaldığını göstermektedir.

Anahtar Kelimeler: Cinsiyet, psikolojik beceriler, takım sporcuları, yaş

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INTRODUCTION

Psychological skills play a crucial role in the success of team athletes. These skills not only determine their performance on the field but also impact their overall well-being and quality of life (Ceylan et al., 2020; Ceylan et al., 2022). Effective psychological skills training has been shown to enhance performance, improve mental resilience, and promote positive personal qualities among athletes. However, despite the vast resources and attention dedicated to improving physical performance, the psychiatric needs of team athletes have been largely overlooked (Glick & Horsfall, 2005). Learning at what levels people's satisfaction is affected creates a healthy and socially strong society (Akyüz et al., 2024). Various sources highlight the importance of psychological skills training in team athletes. One source emphasizes the crucial role of sports psychologists in safeguarding athletes and preventing abuse. Another source focuses on the need for accurate diagnosis and treatment of psychiatric issues in athletes to improve their performance and quality of life (Glick & Horsfall, 2005). Furthermore, the challenges faced by team athletes in their psychological and emotional development, especially during early adolescence, are highlighted. During this stage of life, athletes undergo significant physical and hormonal changes that can impact their behavior and social interactions. This age group may be more prone to aggressive and non-pro-social behaviors, leading to challenges for coaches in their efforts to foster adherence to sports practice (Ureña-Lopera et al., 2020). While examining motivation in sports, one must also know the biological and social aspects of sports (Akyüz et al., 2016). Many coaches strive to optimize the performance of their teams and players, focusing on factors such as physical training, strategy development, and technical proficiency. While these aspects are undeniably important, the psychological and emotional well-being of athletes should be given equal attention. Interactions with coaches and trainers can be effective or deleterious to an athlete. Effective coaching includes a coaching style that boosts an athlete's motivation, self-esteem, and efficacy, while poor coaching can have detrimental psychological effects (Lopes Dos Santos et al., 2020). To address these needs, it is essential to investigate and understand the psychological skills of team athletes.

Given the gaps in meeting the psychological needs of team athletes and the importance of psychological skills training, this paper aims to investigate the psychological skills of team athletes. Team sports have long been recognized for their physical demands, but the importance of psychological skills in optimizing performance and promoting well-being among team athletes cannot be overstated. In today's rapidly changing world, the importance of their

accurate predictions cannot be overstated. Therefore, it is crucial to shed light on the psychological skills of team athletes to maximize their performance and overall success.

METHOD

Research group (population-sample)

A total of 200 voluntary male and female students from the Faculty of Sport Sciences at Ondokuz Mayıs University participated in the study. The participants took part in football, basketball, handball and volleyball. Alpha level (α) for the study was analyzed for power: Typically, 0.05 with a power of 0.80. According to this result and the literature review, it was decided to include 188 people (Lawless & Grobbelaar, 2015). Participants were selected through convenience sampling. The mean age of the students was 21.27 ± 1.82 . 27.10.2023 of 2023-828 decision number Ondokuz Mayıs University Social Sciences Research Ethics Board approved the study.

Data collection tools

In the study, demographic information about age, gender and branch of study were obtained from the participants. In the study, the scale was used to assess the psychological abilities of athletes. The scale was developed by Smith et al. (1995) and translated into Turkish by Erhan et al. (2015) through a validity and reliability study. The scale consists of 28 items, a 4-point Likert scale and 7 sub-dimensions.

Data analysis

The data were analyzed using the SPSS 22 package program. As the data had a normal distribution, the analysis methods Independent Samples T test, Pearson correlation and One Way ANOVA were used. Cronbach's Alpha value for the scale was found to be 0.88.

FINDINGS

Table 1. Comparison of sub-dimensions by gender

Sub-dimensions	Gender	n	$\bar{x} \pm S.d.$	t	p
Coping with Adversity	Male	119	11.74 \pm 2.53	1.731	0.085
	Woman	81	11.08 \pm 2.73		
Coachability	Male	119	14.36 \pm 2.49	-1.678	0.095
	Woman	81	14.92 \pm 2.16		
Concentration	Male	119	11.59 \pm 2.24	1.740	0.083
	Woman	81	11.03 \pm 2.21		
Confidence and Achievement Motivation	Male	119	12.89 \pm 2.18	1.843	0.067
	Woman	81	12.28 \pm 2.49		
Goal Setting/Mental Preparation	Male	119	11.49 \pm 2.33	0.864	0.389
	Woman	81	11.17 \pm 2.94		
Peaking under Pressure	Male	119	11.86 \pm 2.58	4.214	0.000*
	Woman	81	9.95 \pm 3.48		
Freedom from Worry	Male	119	14.21 \pm 2.28	-0.382	0.703
	Woman	81	14.34 \pm 2.32		

*= $p < 0.05$

In Table 1, in the sub-dimension “Peaking under pressure”, the mean score for men was 11.87 ± 2.59 and the mean score for women was 9.95 ± 3.49 . A significant difference was found between the two genders ($p < 0.05$). Men tended to perform better under pressure. No significant difference was found for the other sub-dimensions ($p > 0.05$).

Table 2. Comparison according to where the participants live

Sub-dimensions		Sum of Squares	df	Mean Square	F	p
Coping With Adversity	Between Groups	4.180	2	2.090	0.300	0.741
	Within Groups	1371.740	197	6.963		
	Total	1375.920	199			
Coachability	Between Groups	6.907	2	3.454	0.610	0.544
	Within Groups	1115.288	197	5.661		
	Total	1122.195	199			
Concentration	Between Groups	5.494	2	2.747	0.543	0.582
	Within Groups	997.126	197	5.062		
	Total	1002.620	199			
Confidence and Achievement Motivation	Between Groups	2.619	2	1.310	0.239	0.788
	Within Groups	1078.881	197	5.477		
	Total	1081.500	199			
Goal Setting/Mental Preparation	Between Groups	14.954	2	7.477	1.113	0.331
	Within Groups	1323.401	197	6.718		
	Total	1338.355	199			
Peaking Under Pressure	Between Groups	0.999	2	0.499	0.051	0.951
	Within Groups	1939.381	197	9.845		
	Total	1940.380	199			
Freedom From Worry	Between Groups	10.207	2	5.103	0.967	0.382
	Within Groups	1039.213	197	5.275		
	Total	1049.420	199			

According to the Table 2, no significant difference was found within and between the groups in the sub-dimensions depending on the participants’ place of residence in the metropolis, province, and district ($p > 0.05$).

Table 3. Comparison according to the branches of the participants

Sub-dimensions		Sum of Squares	df	Mean Square	F	p
Coping With Adversity	Between Groups	13.000	3	4.333	0.623	0.601
	Within Groups	1362.920	196	6.954		
	Total	1375.920	199			
Coachability	Between Groups	16.455	3	5.485	0.972	0.407
	Within Groups	1105.740	196	5.642		
	Total	1122.195	199			
Concentration	Between Groups	10.300	3	3.433	0.678	0.566
	Within Groups	992.320	196	5.063		
	Total	1002.620	199			
Confidence and Achievement Motivation	Between Groups	32.580	3	10.860	2.029	0.111
	Within Groups	1048.920	196	5.352		
	Total	1081.500	199			
Goal Setting/Mental Preparation	Between Groups	12.055	3	4.018	0.594	0.620
	Within Groups	1326.300	196	6.767		
	Total	1338.355	199			

Sub-dimensions		Sum of Squares	df	Mean Square	F	p
Peaking Under Pressure	Between Groups	31.460	3	10.487	1.077	0.360
	Within Groups	1908.920	196	9.739		
	Total	1940.380	199			
Freedom From Worry	Between Groups	13.620	3	4.540	0.859	0.463
	Within Groups	1035.800	196	5.285		
	Total	1049.420	199			

In Table 3, no significant difference was found when the sub-dimensions of the scale were compared between athletes in the football, basketball, volleyball, and handball divisions ($p>0.05$).

Table 4. The relationship between the age of the participants and the sub-dimensions

	Coping With Adversity	Coachability	Concentration	Confidence and Achievement Motivation	Goal Setting/Mental Preparation	Peaking Under Pressure	Freedom From Worry
r	0.008	-0.225**	-0.028	-0.002	0.131	0.129	-0.009
Age p	0.905	0.001	0.692	0.972	0.064	0.069	0.898
N	200	200	200	200	200	200	200

**= $p<0.001$

In Table 4, “Coachability” shows a moderate negative correlation with age ($r=-0.225$), and this relationship is statistically significant ($p=0.001$). This shows that openness to learning decreases with increasing age. There is no correlation for the other sub-dimensions ($p>0.05$).

DISCUSSION AND CONCLUSION

The results of this study show that the ability to perform peaking under pressure differs between the sexes. The mean score of male team athletes is higher than the mean score of female team athletes and there is a statistically significant difference. This indicates that men tend to perform better under pressure (Table 1). The reasons for this difference may be manifold. Firstly, it is possible that biological differences play a role. Factors such as the fact that men are physiologically stronger or have different coping skills could influence this result. It is also possible that gender roles and expectations influence the way athletes perform under pressure. For example, the perception that male athletes are more competitive and perform better under pressure may contribute to them performing better under pressure. However, many factors can influence such outcomes and the complexity of these factors may mean that a single explanation is insufficient.

Gender differences in performance under pressure have been a topic of interest in various fields, including sports, academia, and the workplace. The present findings contribute to our understanding of gender differences in performance under pressure, specifically in the context of team athletes (Knoppers & McDonald, 2010). The results suggest that male team athletes

tend to perform better under pressure compared to their female counterparts. These findings align with previous research that has found similar patterns in different domains. For example, a study by Mire et al. found that gender congruence between weightlifters and their coaches was associated with better performance among male athletes. On the other hand, women performed better when their coach was a man until a certain age, after which they performed better when guided by a woman. These gender differences in performance under pressure may be influenced by various factors, such as societal expectations and stereotypes (Cunningham et al., 2021). Societal biases and historical biases against women in sports may contribute to these gender differences in performance. These findings also highlight the importance of considering gender when evaluating and making decisions about performance (Chalabaev et al., 2012). There are also studies with similar findings in the literature (Martens et al., 1990; Beilock & Carr, 2001; Wood & Eagly, 2002). Moreover, it emphasizes the need to create inclusive and equitable environments in sports, academia, and the workplace where individuals of all genders are provided with equal opportunities to excel under pressure (Hall et al., 2000).

According to these results, there were no significant differences between groups and within groups on the sub-dimensions of the psychological ability assessment scale depending on metropolitan, provincial and district residential status (Table 2). In other words, it can be seen that the place of residence of the participants does not have a decisive influence on the results of the psychological ability assessment scale. There may be several possible reasons for these results. First, the development of psychological skills and their impact on performance could be more directly related to the athletes' training and experiences than to their place of residence. Athletes may be in similar circumstances in terms of training programs, technical training, and access to other sources of psychological support. Second, the development of psychological skills may be more related to individual differences and personal effort. That is, the place of residence may not have a direct influence on athletes' ability to cope with difficulties, concentration, motivation, and other psychological skills. Third, these results may suggest that the influence of participants' place of residence on sports psychology does not precede the influence of other factors (e.g., training methods, coaching style, social support, etc.). In other words, there may be other factors that are more decisive for the psychological abilities of athletes.

Understanding the psychological skills of athletes is crucial for their success in sports performance (Ureña-Lopera et al., 2020). This article reviews the literature dealing with problems brought by student-athletes to college counseling and mental health centers

(Pinkerton et al., 1989). The literature discusses various problems faced by student athletes, including fear of success, identity conflicts, social isolation, poor athletic performance, academic problems, and career or job concerns. Although psychological distress is similar or even higher than for non-athletes, research shows that athletes are less likely to seek professional help. Several factors may contribute to the finding that there is no significant difference in the psychological skills of athletes based on their living status. One possible factor is that athletes in different locations may face similar psychological challenges and therefore develop similar coping mechanisms and skills. Another factor could be the availability and accessibility of mental health resources in different locations (Bejaran, 2020). Additionally, the age and developmental stage of athletes can also play a role in their psychological skills. During early adolescence, athletes undergo significant morphological, hormonal, and physiological changes that can result in more aggressive and non-prosocial behaviors. These changes may also impact their ability to cope with difficulties, openness to learning, concentration, confidence and success motivation, goal setting, and mental preparation, ability to perform well under pressure, and relief from worries (Ureña-Lopera et al., 2020). Therefore, the lack of significant differences in the psychological skills of athletes based on their living status could be attributed to various factors such as similar psychological challenges among athletes in different locations, the availability and accessibility of mental health resources, barriers faced by female athletes seeking mental health services, and the impact of age and developmental stage on athletes' psychological skills (Bejaran, 2020).

There was no significant difference ($p>0.05$) when the sub-dimensions of the scale were compared between athletes in the football, basketball, volleyball and handball divisions in our study (Table 3). The results showed a moderate negative correlation ($r=-0.225$) between the ages of participants and their openness to learning in the "Coachability" sub-dimension of the Scale for the Assessment of Athletes' Psychological Skills. These findings suggest that as age increases, openness to learning decreases among team sports participants. Several possible explanations can be considered for this correlation between age and openness to learning (Hernández et al., 2011). One possible explanation is that as individuals get older, they may become more set in their ways and less open to new ideas or approaches. Another explanation could be that as athletes gain more experience and expertise in their sport, they may feel less inclined to seek out new learning opportunities, feeling that they have already mastered the necessary skills (Hernández et al., 2011). Additionally, older athletes may have developed a sense of complacency or a belief that they have reached their peak performance, leading to

reduced motivation for further learning. These findings are consistent with previous research that has shown a decline in openness to learning with age in various domains, including sports (Phoenix et al., 2005).

Recommendations

It can be suggested that coaches or sports psychologists can develop gender and age strategies to improve athletes' performance. For example, when working with male athletes, they can focus on improving their performance under pressure. They can also use more motivational and learning enhancing methods when working with aging athletes, given the decline in learning with age. These strategies can help improve athletes' psychological skills and optimize their performance.

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KATKI ORANI CONTRIBUTION RATE	AÇIKLAMA EXPLANATION	KATKIDA BULUNANLAR CONTRIBUTORS
Fikir ve Kavramsal Örgü <i>Idea or Notion</i>	Araştırma hipotezini veya fikrini oluşturmak <i>Form the research hypothesis or idea</i>	Faruk ALBAY
Tasarım <i>Design</i>	Yöntem ve araştırma desenini tasarlamak <i>To design the method and research design.</i>	Mehmet ÇEBİ Bade YAMAK
Literatür Tarama <i>Literature Review</i>	Çalışma için gerekli literatürü taramak <i>Review the literature required for the study</i>	Faruk ALBAY Bade YAMAK
Veri Toplama ve İşleme <i>Data Collecting and Processing</i>	Verileri toplamak, düzenlemek ve raporlaştırmak <i>Collecting, organizing and reporting data</i>	Faruk ALBAY Bade YAMAK
Tartışma ve Yorum <i>Discussion and Commentary</i>	Elde edilen bulguların değerlendirilmesi <i>Evaluation of the obtained finding</i>	Faruk ALBAY Mehmet ÇEBİ Bade YAMAK

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Etik Kurul Beyanı/ Statement of Ethics Committee

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This research 27.10.2023 of 2023-828 decision number Ondokuz Mayıs University Social and Biberl Sciences Research Ethics Board approved the study.



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