



Çingöz, Y. E. & Mavibaş, M. (2023). An Examination of Emotional and Creative Levels Among Tertiary Students in Team And Individual Sports. *International Online Journal of Education and Teaching (IOJET)*, 10(4). 2390-2401.

Received : 13.03.2023
Revised version received : 24.06.2023
Accepted : 26.06.2023

AN EXAMINATION OF EMOTIONAL AND CREATIVE LEVELS AMONG TERTIARY STUDENTS IN TEAM AND INDIVIDUAL SPORTS

Research article

Yunus Emre ÇİNGÖZ  <https://orcid.org/0000-0002-5702-3997> (Corresponding Author)
Bayburt University, Faculty of Sport Sciences
yunusemrecingoz@bayburt.edu.tr

Muhammet MAVİBAŞ  <https://orcid.org/0000-0002-2771-2521>
Erzurum Technical University, Faculty of Sport Sciences
muhammet.mavibas@erzurum.edu.tr

Biodata(s): No more than 40 words for each author.

Yunus Emre ÇİNGÖZ is an Assistant Professor at the Faculty of Sport Sciences, Recreation Department at Bayburt University, and is also the head of the department.

Muhammet MAVİBAŞ, Erzurum Technical University, Faculty of Sports Sciences, is an Assistant Professor in the Department of Sports Management.

AN EXAMINATION OF EMOTIONAL AND CREATIVE LEVELS AMONG TERTIARY STUDENTS IN TEAM AND INDIVIDUAL SPORTS

Yunus Emre ÇİNGÖZ

yunusemrecingoz@bayburt.edu.tr

Muhammet MAVİBAŞ

muhammet.mavibas@erzurum.edu.tr

Abstract

The primary objective of this research was to investigate the effect of emotional states on creativity levels tertiary students in team and individual sports. The study further aimed to discern the various emotional states and creativity levels prevalent among athletes, contingent on different variables. The participants comprised 302 athletes, 162 males and 140 females, who were all registered students in the Faculty of Sports Sciences at Bayburt University. In order to gather demographic data, the researchers constructed a “Personal Information Form”. The “Sports Emotion Scale”, developed by Urfa and Aşçı (2019), was utilized to assess the emotional states of the athletes within their respective sports. To evaluate their creativity levels in sports, the “Creativity Scale for Athletes”, constructed by Güngör et al. (2020), was utilized. Data analysis incorporated frequency analysis for determining the participants' demographic attributes, and descriptive tests for establishing the mean scores of both emotional states and creativity levels in sports. The independent t-tests were used to compare emotional and creativity levels based on gender and sport type. One-way ANOVA tests were used to compare emotional and creativity levels based on educational level and years of sports experience. Post-hoc comparisons were facilitated using Tukey tests to identify specific group differences. Lastly, multiple linear regression analysis was applied to scrutinize the impact of emotional states on creativity levels in sports. The research findings indicate that athletes participating in team sports demonstrated higher levels of enthusiasm and happiness, as determined by the sub-dimensions of the Sports Emotion Scale, when compared to athletes participating in individual sports. In addition, it was noted that an increase in feelings of unhappiness among athletes corresponded to a decrease in their levels of sports creativity. Conversely, a surge in enthusiasm was associated with heightened creativity levels within sports.

Keywords: Team and Individual Sports, Tertiary Students, Athlete Emotional States, Creativity in Sports

1. Introduction

Sports represent organized human activities, characterized by a sequence of predetermined actions executed with a specific objective at a particular time and location (Birinci, 2019). They carry substantial personal, social, and economic implications. In essence, sports serve as vehicles for individuals to experience physical, mental, emotional, and social growth, as well as to enhance their knowledge, skills, and leadership capabilities.

The escalating prevalence of pandemics and natural disasters has brought about significant changes in people's lifestyles, promoting sedentary living (Sağlam, 2021). The convergence of inactive lifestyles, challenging work conditions, and high levels of stress not only precipitates physical health concerns but also instigates psychological issues. Given the negative health impacts associated with sedentary living, the lack of exercise and limited interest in sports emerge as critical societal issues (Can & Kızılet, 2021). Consequently, participation in both team and individual sports plays an essential role not only in the physical, mental, and social development of individuals, but also provides an avenue to alleviate the pressures of occupational life and urban stressors.

Sports disciplines are typically categorized as "Team Sports" and "Individual Sports." Team sports encompass activities involving groups of two or more athletes, such as football, basketball, volleyball, handball, and ice hockey (Yildirim, 2011). These contribute to the advancement of social skills, effective communication, the collective experience of victories and losses, teamwork, and collaboration. In contrast, individual sports foster attributes such as willpower, self-improvement skills, self-challenge, and self-confidence (Salar et al., 2012). Examples of individual sports include athletics, equestrianism, boxing, fencing, wrestling, tennis, judo, where competition is a solitary venture. These require intense focus and concentration, and the responsibility rests squarely on the athlete. Engagement in individual sports aids the development of personal traits such as self-confidence, self-control, quick decision-making, and advocacy for oneself (Gürbüz, 2019). Notably, the emotional and creativity levels of athletes are crucial components in both team and individual sports.

The concept of emotion pertains to an individual's capacity to understand their own feelings, motivate others, and successfully manage relationships (Sarıkabak, 2018). Emotions, generally brief and triggered by distinct antecedents, have a significant impact on successful sports performance and physical activity engagement. While the transient nature of emotions is widely accepted, theories suggest the presence of a more stable, encompassing level indicative of an individual's emotional tendencies (Çelik, 2021). Terms like mood, affect, and spirit are often used interchangeably in sports research as criteria for emotional assessment. Mood is defined as a persistent emotional state, experienced by an individual without awareness of its causes (Gölge, 2019). In recent years, considerable research has centered on the concept of optimal performance emotional state, particularly within the realms of sports and exercise, exploring the correlation between an individual's emotional state and performance (Gölge, 2019; Çelik, 2021; Sabato et al., 2016; Sukys et al., 2019).

Creativity can be construed as the capacity to respond to problems, deficiencies, inconsistencies, and to identify challenges. It involves searching for solutions, formulating predictions, generating or modifying hypotheses, selecting a pathway to solution, experimenting, reattempting, and finally, presenting results (Chen & Chen, 2012). Within the sphere of sports, creativity denotes the evolution of critical, diverse, and innovative perspectives concerning potential problems that may arise pre, during, or post competitions within a specific sports discipline. This entails possessing original thinking and application skills. Recent years have witnessed an increase in studies probing the influence and importance of creativity on athletes' performance (Chen & Chen, 2012; Memmert, 2015; Arabzade et al., 2023; Güngör et al., 2020).

Drawing from these definitions, it can be inferred that the concept of emotion molds an athlete's ability to manage stress, subsequently impacting their motivation and focus. Similarly, creativity aids athletes in developing diverse and effective strategies within the game, providing them with a competitive edge. Thus, understanding athletes' emotional and creativity levels becomes an essential consideration when formulating training and performance

enhancement strategies. The goal of this study is to examine the influence of emotional and creativity levels on the performance of individuals participating in team and individual sports and to contribute towards the development of emotion and creativity-centric training programs for athletes.

2. Method

2.1. Aim of the Research

This research was conducted with the objective of discerning the emotional states of athletes involved tertiary students in individual and team sports and investigating their impact on creativity levels in sports. The study also sought to ascertain the emotional states and creativity levels of athletes across different variables.

2.2. Research Population and Sample

The population for this study consisted of students enrolled in the Faculty of Sports Sciences at Bayburt University. The sample comprised 302 athletes, 162 males and 140 females.

2.3. Research Design

A correlational survey method was adopted in this study to investigate the emotional states and creativity levels of tertiary students in individual and team sports. The correlational survey model aims to ascertain the existence of co-variation between two or more variables. In this model, the objective is to determine whether variables co-vary and, if so, how this co-variation manifests (Karasar, 2011).

2.4. Data Collection Tools

Several data collection instruments were employed in this study. A "Personal Information Form" developed by the researchers was used to gather demographic information from the participants. The "Sports Emotion Scale" devised by Urfa and Aşçı (2019) was utilized to evaluate the emotional states of athletes in sports. This scale encompasses five sub-dimensions: anxiety, unhappiness, anger, enthusiasm, and happiness, with a total of 22 items rated on a 5-point Likert scale. To determine the athletes' creativity levels in sports, the "Creativity Scale for Athletes" developed by Güngör et al. (2020) was used. This scale is a unidimensional instrument consisting of 19 items. Data collected were analyzed using the SPSS 25 statistical program.

2.5. Data Collection Process

Participants were provided with an explanation about the study in the data collection documents. They were informed that the data derived from their responses would be used exclusively for academic purposes, and their participation was voluntary. Necessary permissions were secured from the Bayburt University Ethics Committee prior to data collection on 07.03.2023 (Ethics committee decision no: E-15604681-100-120974).

2.6. Data Analysis

In this study, frequency analysis was applied to determine the demographic characteristics (personal information) of the participants. Descriptive tests were carried out to ascertain the mean scores of emotional states and creativity levels in sports. Independent t-tests were utilized to compare emotional states and creativity levels in sports based on gender and type of sport. One-way ANOVA tests were used to compare emotional states and creativity levels in sports based on education level and years of sports experience. Tukey tests were used to identify the source of differences. Multiple linear regression analysis was performed to assess the impact of athletes' emotional states on their creativity levels in sports.

3. Findings

Table 1. *Demographic variables*

		N	%
Gender	Male	162	53,6
	Female	140	46,4
Type of Sports	Individual	164	54,3
	Team	138	45,7
Education Level	High School	37	12,3
	Bachelor's Degree	232	76,8
	Postgraduate Degree	33	10,9
Years of Sports Experience	1-3 Years	120	39,7
	4-6 Years	76	25,2
	7-9 Years	56	18,5
	10 Years and Above	50	16,6
TOTAL		302	100

An examination of the demographic attributes of the participants reveals that males constitute 53.6% (162 individuals) of the sample, while females represent 46.4% (140 individuals). Pertaining to the type of sport, 54.3% (164 individuals) participated in individual sports, while 45.7% (138 individuals) were engaged in team sports. With regards to the level of education, 12.3% (37 individuals) were high school graduates, 76.8% (232 individuals) held a bachelor's degree, and 10.9% (33 individuals) had attained a postgraduate degree. In terms of years of sports experience, 39.7% (120 individuals) had 1-3 years of experience, 25.2% (76 individuals) had 4-6 years, 18.5% (56 individuals) had 7-9 years, and 16.6% (50 individuals) had 10 years or more.

Table 2: *Overall averages of participants' emotional and creativity levels in sports*

Variables	N	Min.	Max.	X	Sd
Anxiety	302	,00	4,00	1,55	1,09
Unhappiness	302	,00	4,00	1,29	1,10
Anger	302	,00	4,00	1,37	1,05
Enthusiasm	302	,00	4,00	2,74	1,08
Happiness	302	,00	4,00	2,68	1,00
Creativity	302	2,00	5,00	4,04	0,68

Upon evaluating the scores derived from the emotional scale sub-dimensions for participants, it was discerned that levels of anxiety, unhappiness, and anger were deemed "Low", whilst levels of enthusiasm and happiness were regarded as "Moderate". The level of creativity was found to be "High".

Table 3: Gender-based comparison of participants' emotional and creativity levels in sports

Variables	Gender	N	X	Sd	t	p
Anxiety	Male	162	1,56	1,00	,196	,845
	Female	140	1,54	1,18		
Unhappiness	Male	162	1,34	1,09	,920	,358
	Female	140	1,22	1,11		
Anger	Male	162	1,37	0,97	-,125	,900
	Female	140	1,38	1,14		
Enthusiasm	Male	162	2,77	1,03	,399	,690
	Female	140	2,72	1,13		
Happiness	Male	162	2,80	0,93	2,219	,027*
	Female	140	2,55	1,07		
Creativity	Male	162	4,14	0,75	2,866	,004*
	Female	140	3,92	0,57		

*: p<0,05

Upon conducting a gender-based comparison of the emotional scale sub-dimensions for the participants, no significant differences were discerned in anxiety (p=,845), unhappiness (p=,358), anger (p=,900), and enthusiasm (p=0.690) sub-dimensions (p>0,05). However, a significant difference was noted in the happiness sub-dimension (p=,027) (p<0,05). As per the results, male participants exhibited a higher level of happiness (X=2,80±0,93) compared to female participants (X=2,55±1,07).

In the gender-based comparison of participants' creativity levels in sports, significant differences were discovered between the groups (p=,004) (p<0,05). According to the results, male participants demonstrated a higher level of creativity in sports (X=4,14±0,75) compared to female participants (X=3,92±0,57).

Table 4. Comparison of participants' emotional and creativity levels in sports based on type of sports

Variables	Type of Sport	N	X	Sd	t	p
Anxiety	Individual	164	1,56	0,96	,080	,937
	Team	138	1,55	1,22		
Unhappiness	Individual	164	1,28	0,99	-,184	,854
	Team	138	1,30	1,22		
Anger	Individual	164	1,37	0,96	-,010	,992
	Team	138	1,37	1,16		
Enthusiasm	Individual	164	2,47	1,06	-4,963	,000*
	Team	138	3,07	1,00		
Happiness	Individual	164	2,50	1,00	-3,625	,000*
	Team	138	2,91	0,97		
Creativity	Individual	164	3,92	0,66	-3,360	,001*
	Team	138	4,18	0,68		

*: p<0,05

Upon conducting a comparison of the emotional scale sub-dimensions for the participants based on sport type, no significant differences were found in anxiety (p=,937), unhappiness

($p=0.854$), and anger ($p=.992$) sub-dimensions ($p>0,05$). However, significant differences were observed in enthusiasm ($p=.000$) and happiness ($p=.000$) sub-dimensions ($p<0,05$). As per the results, participants engaged in team sports exhibited higher levels of enthusiasm ($X=3,07\pm1,00$) compared to those engaged in individual sports ($X=2,47\pm1,06$). Similarly, participants engaged in team sports demonstrated higher levels of happiness ($X=2,91\pm0,97$) compared to those engaged in individual sports ($X=2,50\pm1,00$). In the comparison of participants' creativity levels in sports based on sport type, significant differences were identified between the groups ($p=.001$) ($p<0,05$). According to the results, participants engaged in team sports had higher levels of creativity in sports ($X=4,18\pm0,68$) compared to those engaged in individual sports ($X=3,92\pm0,68$).

Table 5. *Participants' emotional and creativity levels in sports: comparison based on educational levels*

Variables	Education Level	N	X	Sd	F	p	Diff.
Anxiety	A) High School	37	1,43	1,09	,511	,601	-
	B) Bachelor's Degree	232	1,55	1,07			
	C) Postgraduate Degree	33	1,69	1,23			
Unhappiness	A) High School	37	1,21	1,15	,113	,894	-
	B) Bachelor's Degree	232	1,29	1,09			
	C) Postgraduate Degree	33	1,33	1,13			
Anger	A) High School	37	1,36	1,07	,098	,907	-
	B) Bachelor's Degree	232	1,36	1,04			
	C) Postgraduate Degree	33	1,45	1,14			
Enthusiasm	A) High School	37	2,85	0,94	1,088	,338	-
	B) Bachelor's Degree	232	2,70	1,09			
	C) Postgraduate Degree	33	2,96	1,09			
Happiness	A) High School	37	2,74	1,01	1,788	,169	-
	B) Bachelor's Degree	232	2,63	0,98			
	C) Postgraduate Degree	33	2,98	1,12			
Creativity	A) High School	37	3,97	0,64	,408	,666	-
	B) Bachelor's Degree	232	4,04	0,69			
	C) Postgraduate Degree	33	4,12	0,69			

*: $p<0,05$

No significant differences were detected among the emotional sub-dimensions of anxiety($p=.601$), unhappiness ($p=.894$), anger ($p=.907$), enthusiasm ($p=.338$), and happiness ($p=.169$) in participants according to their educational levels ($p>0,05$). Likewise, no significant

differences were identified in participants' creativity levels in sports based on their educational levels ($p=,666$) ($p<0,05$).

Table 6: *Participants' emotional and creativity levels in sports: comparison based on years of sports experience*

Variables	Years of Sports Experience	N	X	Sd	F	p	Diff.
Anxiety	A) 1-3 Years	120	1,50	1,04	,229	,876	-
	B) 4-6 Years	76	1,63	0,99			
	C) 7-9 Years	56	1,57	1,35			
	D) 10 Years and Above	50	1,56	1,03			
Unhappiness	A) 1-3 Years	120	1,25	1,07	1,691	,169	-
	B) 4-6 Years	76	1,47	1,17			
	C) 7-9 Years	56	1,35	1,24			
	D) 10 Years and Above	50	1,04	0,83			
Anger	A) 1-3 Years	120	1,30	1,07	1,504	,214	-
	B) 4-6 Years	76	1,51	1,00			
	C) 7-9 Years	56	1,51	1,23			
	D) 10 Years and Above	50	1,18	0,84			
Enthusiasm	A) 1-3 Years	120	2,35	1,15	10,133	,000	B,C,D>A
	B) 4-6 Years	76	3,02	0,94			
	C) 7-9 Years	56	3,08	0,89			
	D) 10 Years and Above	50	2,90	1,00			
Happiness	A) 1-3 Years	120	2,33	1,07	8,943	,000	B,C,D>A
	B) 4-6 Years	76	2,93	0,87			
	C) 7-9 Years	56	2,91	0,87			
	D) 10 Years and Above	50	2,92	0,93			
Creativity	A) 1-3 Years	120	3,83	0,63	8,810	,000	C,D>A
	B) 4-6 Years	76	4,05	0,72			
	C) 7-9 Years	56	4,25	0,63			
	D) 10 Years and Above	50	4,32	0,62			

*: $p<0,05$

In analyzing the sub-dimensions of participants' sports emotion scale relative to the duration of their engagement in sports, no significant disparities were observed in the facets of anxiety ($p=,876$), unhappiness ($p=,169$), and anger ($p=,214$), where ($p>0,05$). Conversely, noteworthy differences were identified in the sub-dimensions of enthusiasm ($p=,000$) and happiness ($p=,000$), where ($p<0,05$). In line with these findings, participants who have engaged in sports for 4-6 years ($X=3,02\pm 0,94$), 7-9 years ($X=3,08\pm 0,89$), and 10 years or more ($X=2,90\pm 1,00$) exhibited higher levels of enthusiasm than those with 1-3 years of engagement ($X=2,35\pm 1,15$). Regarding happiness, participants engaged in sports for 4-6 years ($X=2,93\pm 0,87$), 7-9 years ($X=2,91\pm 0,87$) and 10 years or more ($X=2,92\pm 0,93$) demonstrated higher levels than those engaged for 1-3 years ($X=2,33\pm 1,07$).

Moreover, when comparing participants' creativity levels in sports based on their duration of engagement, significant variations were found across the groups ($p=,000$), where ($p<0,05$). The results indicated that participants engaged in sports for 7-9 years ($X=4,25\pm 0,63$) and 10

years or more ($X=4,32\pm 0,62$) showcased higher levels of creativity than those engaged for 1-3 years ($X=3,83\pm 0,63$).

Table 7. Multiple linear regression results on the influence of participants' sports emotions on creativity levels in sports <

Predictor Variable	B	Sh	β	T	P	Bivariate r	Partial r
Constant	3,481	0,12		27,237	,000		
Anxiety	,068	0,05	,109	1,352	,177	,073	,078
Unhappiness	-,175	0,05	-,282	-3,116	,002	-,168	-,178
Anger	,118	0,06	,182	1,908	,057	,103	,110
Enthusiasm	,116	0,05	,182	2,031	,043	,110	,117
Happiness	,076	0,05	,112	1,303	,194	,070	,075

$R=,368$; $R^2=,136$; $F=9,292$; Durbin -Watson= $1,939$; $p=,000$

Table 7 provides the multiple linear regression results on the influence of participants' sports emotions on their levels of creativity in sports. It can be inferred that all sub-dimensions of the sports emotion scale act as predictors of creativity in sports ($R=,368$; $R^2=,136$; $p<0,05$). These sub-dimensions, encompassing anxiety, unhappiness, anger, enthusiasm, and happiness, explain 36,8% of the variance in creativity within sports.

The hierarchy of significance in elucidating creativity in sports among the predictor variables, the sub-dimensions of sports emotion, is as follows: unhappiness ($\beta=-,282$), anger ($\beta=,182$), enthusiasm ($\beta=,182$), happiness ($\beta=,112$), and anxiety ($\beta=,109$).

An examination of the regression coefficients' significance reveals that unhappiness and enthusiasm ($p<0,05$) significantly elucidate creativity in sports, whereas anxiety, anger, and happiness ($p>0,05$) do not significantly impact sports creativity.

Pertaining to the association between predictor variables and creativity in sports, there exists a correlation at the level of unhappiness ($r=-,168$) and enthusiasm ($r=,110$). This is when controlling for the effects of other predictor variables at the levels of unhappiness ($r=-,178$) and enthusiasm ($r=,117$), respectively.

4. Discussion and Conclusion

This study was designed to explore the levels of emotion and creativity among tertiary students in team and individual sports. Notably, sports play a vital role in shaping individuals' physiological, psychological, and social aspects, and consequently, their overall proficiency in social and professional spheres. The current research ascertained and compared the emotion and creativity levels in athletes engaging in team and individual sports, taking into account gender, sport type, and duration of participation. Both emotional and creative levels of participants were examined separately.

Upon comparison of the sub-dimensions of the sports emotion scale across genders, no significant disparities were identified in anxiety, unpleasantness, and anger. However, a noteworthy distinction was observed in the happiness sub-dimension. The data illustrated that male participants exhibited higher happiness levels relative to their female counterparts. Literature review revealed a similar trend in a study by Yazıcı (2016), where a statistical difference was detected favoring male participants regarding gender variable. This study aligns with previous research that reported emotional variations leaning towards male athletes. However, findings from studies by Karaağaç & Şahan (2021), Gölge (2019), and Barış & Bingöl (2022) dispute our observations, demonstrating no significant emotional differences across genders.

In terms of participants' creativity levels in sports, considerable disparities were noted based on gender. Males appeared to have superior levels of creativity compared to females. This observation is supported by the study conducted by Yılmaz (2019) on high school students, which unveiled significant disparities between male and female students concerning creative personality traits, especially intrinsic motivation, risk-taking subscales, and total scale scores. However, Özmutlu's study (2008) on Physical Education and Sports Colleges' students found no significant gender-based difference in creativity levels. This stands in contradiction with our findings, as various studies suggest that females exhibit higher creativity levels compared to males.

Upon comparing the sub-dimensions of the sports emotion scale according to sport type, no significant disparities were found in the areas of anxiety, unpleasantness, and anger. However, notable differences were seen in the enthusiasm and happiness sub-dimensions. Athletes engaged in team sports showed higher levels of enthusiasm and happiness than those participating in individual sports. A review of the literature revealed contrasting findings. Studies by Karaağaç & Şahan (2021) and Barış & Bingöl (2022) did not identify any statistically significant differences in emotion levels based on sport type.

Upon examining the creativity levels of participants in sports relative to the type of sport, significant disparities were identified among the groups. The results indicated that athletes involved in team sports demonstrated higher levels of creativity in comparison to those participating in individual sports. In their study on elite-level individual and team athletes, Yıldız et al. (2023) did not find any significant differences pertaining to the type of sport. Furthermore, Dollen et al. (2015) discovered that Australian athletes involved in team sports utilized problem-focused coping strategies more frequently than their Dutch counterparts. An examination of the literature reveals a dearth of studies focusing explicitly on the relationship between sport type and individual creativity levels. Nonetheless, Derbentoğlu's study (2019) did uncover higher creativity scores among individuals who engage in sports.

With regard to the sports emotion scale, when analyzing the sub-dimensions based on the years of engagement, no significant differences were identified in the sub-dimensions of anxiety, unpleasantness, and anger. However, there were significant disparities in the sub-dimensions of enthusiasm and happiness. The data showed that athletes who had participated in sports for 4-6 years, 7-9 years, and over 10 years displayed higher levels of enthusiasm and happiness compared to those who had been involved for 1-3 years. This aligns with findings from a study by Karaağaç & Şahan (2021), which found a statistically significant difference favoring participants with more than 10 years of engagement in sports. Nevertheless, in contrast to our study, Koçyiğit (2023) did not identify significant variations in emotion sub-dimensions based on years of engagement.

Upon examining participants' creativity levels in sports relative to their years of engagement, significant disparities were noted among the groups. Athletes who had been engaged in sports for 7-9 years and over 10 years exhibited higher levels of creativity in comparison to those who had participated for 1-3 years. The findings suggest a positive correlation between increased creativity levels and longer durations of sports engagement. Nevertheless, contrary to our findings, the study conducted by Yıldız et al. (2023) did not identify significant differences based on any specific sport type. Moreover, Derbentoğlu (2019) did not find significant differences in creativity scores among teacher candidates based on their years of engagement. The study found no significant disparities among different year groups in terms of creativity scores.

Based on the obtained results, it can be inferred that there are differences in the emotion and creativity levels among tertiary students in team and individual sports, which are influenced by factors such as gender, type of sport, education level, and years of engagement. The present study aimed to investigate the emotion and creativity levels of individuals involved in team and individual sports across various age groups. The findings of this study indicate that both team sports and individual sports contribute to the enhancement of individuals' social connections and offer a wider range of emotional experiences. In general, both team and individual sports facilitate the development of individuals' emotional and creative capacities, and the effects of different sport types on individuals vary.

References

- Arabzade, M., Zarei, A., Khodayari, A., Pourkiani, M., & Honari, H. (2021). Correlation between psychological empowerment and creativity of sports managers in attracting donors. *Journal of Health Promotion Management*, 10(5), 121-32.
- Barış, A., & Bingöl, Ş. (2022). Türkiye’deki Milli Taekwondocuların Duygu Durumları ve Kaygı Düzeylerinin Araştırılması. *Hakkâri Review*, 6(2), 59-76.
- Birinci, R. (2019). *Spor yapan ve yapmayan bireylerin benlik saygısı ve saldırganlık düzeylerinin incelenmesi* (Master's thesis, Sağlık bilimleri enstitüsü).
- Chen, J. ve Chen, I. S. (2012) “Creative-Oriented Personality, Creativity Improvement, and Innovation Level Enhancement”, *Quality and Quantity*, 26: 1625-1645
- Çelik, D. Ö., Yılmaz, O., Şahin, İ., & Besler, M. (2021). Elit seviyedeki bireysel kadın sporcuların duygusal zekâ düzeylerinin incelenmesi. *Gaziantep Üniversitesi Spor Bilimleri Dergisi*, 6(1), 110-122.
- Derbentoğlu, P. B. (2019). *Spor yapan ve yapmayan öğretmen adaylarının yaratıcı düşünme becerilerinin incelenmesi* (Master's thesis, Sağlık Bilimleri Enstitüsü).
- Dollen, M., Grove, R.J., Pepping, G.J. (2015). A comparison of coping-styles of individual and team athletes of Australia and the Netherlands. *International Sports Studies*, 37(2), 26-48
- Esra, C. A. N., & Kızılet, A. (2021). Düzenli olarak antrenman yapan bireylerin spor salonlarına yönelik hizmet kalitesi algılarının spora bağlılığa etkisi. *Spor Eğitim Dergisi*, 5(3), 87-97.
- Gölge, A. (2019). *Teakwondo sporcularının duygu durumları ve zihinsel dayanıklılıklarının ölçülmesi (Yozgat ili)* (Master's thesis, Eğitim Bilimleri Enstitüsü).
- Güngör, N. B., Esentürk, O. K., İlhan, L., & Yenel, F. (2020). Sporcular için Yaratıcılık Ölçeği (SYÖ)’nin Psikometrik Özelliklerinin İncelenmesi. *Gazi Beden Eğitimi ve Spor Bilimleri Dergisi*, 25(4), 455-467.
- Gürbüz, H. (2019). *İstanbul ilinde bireysel sporlar ile takım sporları yapan 12-16 yaş öğrencilerin atılganlık düzeylerinin karşılaştırılması* (Master's thesis, İstanbul Gelişim Üniversitesi Sağlık Bilimleri Enstitüsü).
- Karaağaç, S., & Şahan, H. (2021). Bireysel ve takım sporcularında optimal performans duygu durumu ve zihinsel antrenman ilişkisinin incelenmesi. *Uluslararası Türk Spor ve Egzersiz Psikolojisi Dergisi*, 1(1), 26-39.
- Karasar, N. (2011). *Bilimsel Araştırma Yöntemleri*. Ankara: Nobel Yayınları.
- Koçyiğit, B. (2023). Taekwondocuların Duygu Düzeylerinin Bazı Değişkenler Açısından İncelenmesi. *Spor Bilimlerinde Multidisipliner Araştırmalar*, 45.
- Memmert, D. (2015). Development of tactical creativity in sports. In *Routledge handbook of sport expertise* (pp. 363-372). Routledge.
- Özmutlu, İ. (2008). *Beden eğitimi ve spor yüksek okullarında öğrenim gören öğrencilerin liderlik ve yaratıcılık özelliklerinin karşılaştırılması* (Yüksek Lisans Tezi). Gazi Üniversitesi, Sağlık Bilimleri Enstitüsü. Ankara.
- Sabato, T. M., Walch, T. J., & Caine, D. J. (2016). The elite young athlete: strategies to ensure physical and emotional health. *Open access journal of sports medicine*, 99-113.

- Sağlam, A. F. (2021). *Spor yapan bireylerin zihinsel dayanıklılık ile yaratıcılık düzeylerinin incelenmesi* (Master's thesis, Hitit Üniversitesi).
- Salar, B., Hekim, M., & Tokgöz, M. (2012). 15-18 yaş grubu takım ve ferdi spor yapan bireylerin duygusal durumlarının karşılaştırılması. *Mehmet Akif Ersoy Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (6), 123-135.
- Sarıkabak, M., Eyüboğlu, E., & Ayrancı, M. (2018). Bocce (Petank) sporcularının duygusal zekâ düzeylerinin, akademik erteleme davranışları üzerine etkisinin incelenmesi. *Uluslararası Kültürel ve Sosyal Araştırmalar Dergisi (UKSAD)*, 4(1), 163-177.
- Sevinç, K., Özmutlu, İ., & Kapçak, V. (2022). Futbol ve Basketbol Sporcularının Zihinsel Dayanıklılık ile Yaratıcılık Düzeylerinin İncelenmesi. *Uluslararası Egzersiz Psikolojisi Dergisi*, 4(2), 38-46.
- Sukys, S., Tilindienė, I., Cesnaitienė, V. J., & Kreivyte, R. (2019). Does emotional intelligence predict athletes' motivation to participate in sports? *Perceptual and motor skills*, 126(2), 305-322.
- Tosun, A., Demir, B., Uçkun, G., & Konak, O. (2015). Spor Aktivitelerinin Üniversite Öğrencilerinin Başarı ve Motivasyonu İle İlişkisi. Kocaeli Üniversitesi Ulusal Kongresi.
- Urfa, O. & Aşçı, F. H. (2019). Spor Duygu Ölçeği: Geçerlik ve Güvenirlik Çalışması. *Sportmetre Beden Eğitimi ve Spor Bilimleri Dergisi*, 17(4), 42-55.
- Yazıcı, A. (2016). *Profesyonel Basketbol Oyuncularında Zihinsel Dayanıklılık ve Duygusal Zekânın Çeşitli Değişkenler Açısından İncelenmesi*, Yayınlanmamış Yüksek Lisans Tezi, Gazi Üniversitesi, Beden Eğitimi ve Spor Anabilim Dalı, Ankara
- Yıldız, N. O., Hale, K. U. L. A., Kaçay, Z., & Soyer, F. (2023). Bireysel Yaratıcılığın Başa Çıkma Tutumları Üzerine Etkisi: Elit Düzeyde Bireysel ve Takım Sporunu Yapan Sporcular Üzerine Bir Araştırma. *Düzce Üniversitesi Spor Bilimleri Dergisi*, 3(1), 63-74.
- Yılmaz, M. (2019). *Lise öğrencilerinde yaratıcı kişilik ile beş faktör kişilik özellikleri arasındaki ilişkiler* (Yüksek Lisans Tezi). Nişantaşı Üniversitesi, Sosyal Bilimler Enstitüsü. İstanbul.
- Yildirim, S. (2011). *Lisanslı olarak takım sporu ve bireysel spor yapan ile spor yapmayan ortaöğretim öğrencilerinin sosyal beceri düzeylerinin karşılaştırılması* (Master's thesis, Sosyal Bilimler Enstitüsü).