2023
03

ORIGINAL ARTICLE

The relationship between burnout levels and mindfulness of university students-athletes

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Authors' Contribution: A – Study design; B – Data collection; C – Statistical analysis; D – Manuscript Preparation; E – Funds Collection

Abstract

Background and Study Aim Athlete burnout is a common issue that negatively affects the performance and well-being of athletes. This study was conducted to examine the relationship between burnout levels and mindfulness of students who are active athletes.

Material and Methods Descriptive analysis and correlational research model were utilized in the study. As data collection tools in the study, "Personal Information Form" including demographic information of the students was requested at first. Two scales were used: The "Athlete Burnout Scale," developed by Raedeke and Smith and adapted into Turkish by Kelecek et al.; The "Athlete Mindfulness Scale," developed by Thienot et al. and adapted into Turkish by Tingaz. The research group consisted of a total of 378 people, 96 women and 282 men, who were selected by random sampling method, actively practicing sports. In the study, t-test was used for pairwise comparisons and ANOVA test was used for multiple comparisons. Pearson Correlation analysis was used to determine the relationship between mindfulness and burnout levels.

Results In the study, it was found that there were significant differences in burnout levels depending on the gender variable and in some mindfulness sub-dimensions depending on the branch variable. In addition, it was determined that there was a significant negative relationship between burnout levels and mindfulness levels.

Conclusions The study found that active sports students with high mindfulness levels had lower levels of burnout, indicating that mindfulness may play a role in reducing burnout. While there were differences in mindfulness sub-dimensions based on age and sport type, overall mindfulness levels did not differ significantly.

Keywords: active athlete, burnout, mindfulness, student

Introduction

Burnout was first introduced by Freudenberger in 1974, and as a result of his observations on the changes caused by the intensity of the work pace on the employees and himself, he determined that it is a state of mind that negatively affects the person and reduces his productivity [1]. As in many fields of study, researchers have addressed the concept of burnout from different angles by considering that the performance of athletes can be negatively affected [2, 3, 4, 5]. Although participation in sport is generally seen as enjoyable, athletes face many challenges during the long period of athletic development, such as intensive training and heavy academic load [6]. The difficulty of coping with these challenges may cause athletes to experience a maladaptive psychological syndrome known as athlete burnout [7]. When we examine the concept of burnout from a sporting perspective, it is defined as the physical and psychological toll that accompanies the intense participation of an individual in an activity and that the individual faces with the prolonged duration of this process [8]. Conceptually, athlete burnout is considered a syndrome characterized by three main symptoms: emotional and physical exhaustion, loss of value in sport, and decreased sense of accomplishment [5]. Athlete burnout is associated with negative outcomes such as decreased motivation, impaired performance, and sport dropout [9].

Considering these negative effects of burnout on athletes, it can be thought that there should be a way to cope with it. In this context, it may help athletes to cope with the feeling of burnout if they stay only in the emotional field they have at that moment and do not worry about the past and the future. In this respect, it can be said that the concept of mindfulness has started to gain importance in recent years.

Mindfulness is an approach that seeks to reveal the experiences offered by each moment without ignoring the set goals [10]. Mindfulness is an innate capacity that can be developed through mindfulness-based practices [11]. It also helps athletes learn to live with stressors and challenges that may arise during training and competition or during preparation, such as competition, intense

doi:10.15561/20755279.2023.0301

training and injury. An athlete with a high level of mindfulness is able to maintain optimal focus while observing their current performance, monitor their internal reactions to stressors and specific experiences, and avoid unnecessary self-criticism [12]. Bühlmayer et al., in their meta-analysis study of mindfulness awareness on sportive performances, found that mindfulness practices had a positive effect on the performance of the participants. They also stated that more studies should be conducted on mindfulness and sportive performance and that it would be beneficial to consider mindfulness as a mental skills training approach for athletes [13].

It can be thought that mindfulness-based practices can be used to improve performance by eliminating or alleviating the psychological barriers to performance such as anxiety, attention, emotion regulation, and burnout, which are likely to be seen in athletes. However, while these practices are used to improve performance, it may be important to know the effect of different variables such as branch and gender on burnout or mindfulness level. In this context, our study aims to examine the relationship between burnout and mindfulness levels of university students who are active athletes. In addition, mindfulness and burnout levels were tried to be examined in terms of different variables. It is thought to contribute to the literature in these aspects.

Materials and Methods

Participants

A total of 378 people, 96 of whom were female and 282 of whom were male, who were studying at Bandırma Onyedi Eylül University and practicing active sports were included in the study. The students participating in the study were selected by non-probability convenience sampling method [14]. Participants were informed before the distribution of the scales and it took approximately 10 minutes. Demographics of participants appear in Table 1.

Table 1. Demographic information on participants

Variables	Groups	F	%
Gender	Female	96	25.4
	Male	282	74.6
Age	18-20	261	69
	21 and over	117	31
Sport Branch	Football	99	26.2
	Volleyball	99	26.2
	Basketball	72	19
	Others	108	28.6
Total		378	100

Research Design

In this study, correlational research and descriptive analysis models were used in accordance with the objectives. The correlational research model specifies a problem, variables and relationships between variables [15]. The descriptive model is an approach that aims to describe a case that existed in the past or is still present as it is. The person or object that has been the subject of research should be tried to be defined with its own conditions and as it is. The researched object cannot be influenced, changed or transformed in any way. What is wanted to be known is tried to be taken [16]. The information in the research was obtained by utilizing the questionnaire technique.

Data Collection Tools. The data in this study were collected using a questionnaire form prepared by the researcher asking demographic data, " Athlete Burnout Scale " and " Athlete Mindfulness Scale ".

Personal Information Form: A questionnaire form was created to learn the demographic information of the participants in terms of age, gender and branch.

Athlete Burnout Scale: In the study, the scale developed by Raedeke and Smith (2001) to determine the burnout levels of student athletes was adapted into Turkish by Kelecek et al. (2016) [17, 18]. The scale consists of 13 questions including emotional and physical exhaustion (1-3-7-9-10), depersonalization (2-5-8-13) and decreased sense of accomplishment (4-6-11-12) sub-dimensions. The scale has a 5-point Likert scale with the statements 1- Never, 2- Very Rarely, 3- Sometimes, 4- Most of the Time and 5- Always.

Athlete Mindfulness Scale: The scale was developed by Thienot et al. (2014) and adapted to Turkish after a validity and reliability study by Tingaz (2020) [19, 20]. It consists of 15 items and has 3 sub-dimensions: awareness (1-2-3-4-5), non-judgment (6-7-8-9-10) and refocusing (11-12-13-14-15). The scale includes (1) Almost Never, (2) Very Rarely, (3) Rarely, (4) Sometimes, (5) Most of the Time, and (6) Almost Always and is a 6-point Likert scale.

Collection of Data. The data collection tools used in the study were applied face-to-face to the active sports students who constituted the sample. Before the form was applied, it was informed that participation in the study was voluntary.

Ethical Dimension of Research. After the voluntary consent form was obtained from the participants in the study, information was given about the scales applied. In order to conduct the study, the necessary permissions were obtained with the decision numbered 2023-2 10.03.2023 of the Ethics Committee of Bandırma Onyedi Eylül University Institute of Social and Human Sciences.

Statistical Analysis

Skewness and Kurtosis (±1.5) values of the study

were measured and as a result, it was understood that the data were normally distributed [21]. In the study, t-test was used to understand the difference in terms of burnout and mindfulness depending on the gender variable and ANOVA test was used to understand the difference depending on the branch variable. Pearson correlation analysis was used to determine the relationship between mindfulness and its sub-dimensions and burnout. SPSS 26 statistical package program was used to analyze the data.

Results

In this study, it was aimed to determine the relationship between mindfulness level and burnout level. Firstly, before correlation analysis, the relationship between gender and branch variables with mindfulness and burnout level was examined and the data obtained are presented in Table 2 and Table 3.

Table 2 shows the t-test results of active sports students according to gender variable. Accordingly, it was determined that there was a significant

Table 2. T test results according to burnout and mindfulness scores based on gender variable

Parameters	Groups	X̄	s.s.	df	t	p	Cohen's d
Emotional Physical Burnout	Female	1.49	,63	376	-2.072	.039*	-0.250
	Male	1.66	.69				
Depersonalization	Female	1.55	,58	376	-2.787	.006*	-0.343
	Male	1.77	,70				
Decreased Sense of Achievement	Female	2.00	,79	376	-.496	.621	-0.056
	Male	2.05	,70				
Burnout Scale Mean	Female	1.67	,56	376	-2.036	.042*	-0.245
	Male	1.81	,61				
Mindfulness Scale Mean	Female	4,28	,64	376	.717	.474	0.088
	Male	4,22	,79				

*p<0.05

Table 3. ANOVA test results of burnout and mindfulness scores based on branch variable

Parameters	Sport Branch	X̄	Ss	F	p	η2	Tukey
Awareness	Football	4.72	1.08	0.89	.966	.001	
	Volleyball	4.70	1.04				
	Basketball	4.78	.79				
	Others	4.75	.89				
Non-judgment	Football	3.50	1.33	4.077	**.007***	.032	4<1,2,3
	Volleyball	3.15	1.16				
	Basketball	3.06	1.09				
	Others	2.95	1.12				
Refocusing	Football	4.96	1.12	3.386	**.018***	.026	2<1,3,4
	Volleyball	4.59	1.07				
	Basketball	5.00	.79				
	Others	4.71	.96				
Mindfulness scale mean	Football	4.39	.89	2.613	.051	.021	
	Volleyball	4.15	.72				
	Basketball	4.28	.64				
	Others	4.14	.71				
Burnout scale mean	Football	1.85	.68	1.722	.162	.014	
	Volleyball	1.66	.52				
	Basketball	1.78	.53				
	Others	1.81	.64				

Note: Others (table tennis, tennis, badminton, combat sports, athletics); *p<0.05

Table 4. Correlation table between mindfulness and burnout

Parameters		Awareness	Non-judgment	Refocusing	Mindfulness Scale Mean
Burnout Scale Mean	r	**-.257****	-.062	**-.241****	**-.250 ****
	p	.000	.226	.000	.000
	n	378	378	378	378

**p<0.001

difference in the mean of emotional and physical burnout, depersonalization sub-dimensions and athlete burnout scale (p<0.05). As a result of the analysis, it was determined that the burnout averages of men were higher than women. There was no significant difference between the groups in the mean of the athlete mindfulness scale (p>0.05). In addition, it was seen that gender had a small effect on burnout level [22].

Table 3 shows the ANOVA test results of the mindfulness levels of student athletes according to the branch variable. According to the branch variable, there is a significant difference in the sub-dimensions of non-judgment and refocusing (p<0.05). As a result of the Tukey test conducted to determine between which groups the difference was between, it was understood that in the non-judgmental sub-dimension, athlete students who were involved in sports such as handball, table tennis, tennis, badminton and athletics had higher scores than the others, and in the refocusing sub-dimension, students who were interested in volleyball had higher scores than the others. In addition, it was determined that the sport branch had a small effect on the sub-dimensions of non-judgment and refocusing.

Table 4 shows the correlation table between the burnout levels of the student athletes and their mindfulness. Accordingly, it was found that there was a statistically significant negative relationship between mindfulness, refocusing sub-dimensions and Mindfulness general averages (p<0.01). However, no significant relationship was found in the non-judgment sub-dimension (p>0.05). Accordingly, it can be said that those with high burnout levels have low mindfulness levels.

Discussion

In the study, the relationship between burnout levels and mindfulness levels of students who are active athletes at university was tried to be examined. In this context, firstly, the mindfulness and burnout levels of the students were examined depending on the gender variable (Table 2). Then, it was evaluated whether there was a difference between the sports branches in which the students were active athletes and their mindfulness levels (Table 3). Finally, the relationship between burnout levels and mindfulness levels was analyzed (Table 4).

In the study, it was determined that there was a significant difference in students' burnout levels depending on the gender variable and male students had higher burnout levels than female students. No significant difference was found according to mindfulness levels. Yarnell et al., in a meta-analysis study on self-compassion and 71 articles, concluded that men have higher levels of self-compassion than women [23]. This was thought to be due to the fact that women face social evaluation more than men and that appearance and gender roles cause negative physical outcomes and unhealthy behaviors compared to men [24]. Amemiya and Sakairi stated in their study that self-compassion and mindfulness levels were lower in women, and in this case, women's burnout levels were higher than men [25]. Although this result seems to be the opposite of our study, even if it is not statistically significant in our study, it is similar to our study, since it is determined that women's mindfulness levels are higher than men's and mindfulness level has an effect on burnout. In other words, it can be said that the difference in the result may be due to the fact that the mindfulness levels of women in our study were higher than the mindfulness levels of men in the study of Amemiya and Sakairi. In addition, similar to our study, Tingaz et al. [26] and Atasoy [27] found no statistically significant difference in mindfulness levels depending on the gender variable in their studies.

In the study, when the mindfulness levels of the participants were evaluated depending on the branch variable, it was understood that there was no significant difference in the mindfulness averages, but there were significant differences between those who were engaged in handball, table tennis, tennis, badminton and athletics in the non-judgmental sub-dimension and those who were interested in volleyball in the refocusing sub-dimension. It is thought that the difference in the non-judgment sub-dimension is due to the fact that most of the branches defined as other are the branches that are

practiced as individual sports and the athletes avoid judging themselves. It is thought that the difference in the refocusing sub-dimension for the volleyball branch is due to the fact that it is a sport branch that does not involve contact with the opponent and that communicating only with teammates without entering into a dialogue with the opponent can help the athlete to refocus on the competition. In the study conducted by Atasoy on combat sports and team sports athletes, a significant difference was found in the awareness sub-dimension, while no significant difference was found between mindfulness levels [27]. In this respect, it is similar to our study. In addition, when the literature was examined, it was seen that there are many studies investigating the effect of mindfulness practices on sports [28, 29, 30, 31].

When the relationship between mindfulness and burnout was examined in the study, it was found that there was a statistically significant negative relationship between mindfulness, refocusing sub-dimensions and Mindfulness general averages, but there was no significant negative relationship in the non-judgment sub-dimension. Similar to our study, Chuang et al. determined that there was a significant negative relationship between mindfulness and burnout in their study on golfers [32]. In addition, Ameniya and Sakairi [25] and Ameniya and Sakairi [33] also found a negative relationship between mindfulness and burnout [25, 33]. In contrast to our study, Zhang et al. concluded that there is a positive relationship between mindfulness and burnout [5]. In addition, CH Wu et al. found that there was a significant positive relationship between mindfulness and athletes' psychological skills (coping with difficulties) in a study on athletes at university [34]. In other words, it was stated that athletes with high mindfulness levels will be psychologically strong. In this context, it can be said that athletes' mindfulness levels indirectly have a negative relationship with burnout.

Conclusions

As a result of the study, it was determined that the burnout levels of active athletes with high levels of mindfulness were low, and although there were differences in mindfulness sub-dimensions according to branch and age variables, there was no significant difference in mindfulness levels. It was also determined that male students experienced more burnout than female students.

Acknowledgement

The authors sincerely thank the subjects, who participated in this study and contributed to the realization of this study. This research received no funding

Conflict of interest

The authors declare no conflict of interest.

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Cite this article as:
Metin SN, Uzgur K, Akkoyunlu Y, Konar N. The relationship between burnout levels and mindfulness of university students-athletes. *Physical Education of Students,* 2023;27(3):97–103.
https://doi.org/10.15561/20755279.2023.0301

Received: 20.04.2023

Accepted: 18.05.2023; **Published**: 30.06.2023