



Examination of the relationship between basketball referee's mental well-being and emotional regulation levels

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ABSTRACT

This study utilized a relational screening model to examine the relationship between mental well-being and emotional regulation levels among basketball referees. The research sample consisted of 327 active field referees officiating in Turkish basketball leagues during the 2021–2022 season, selected using an accessible sampling method. The sample included 13.50% (n = 44) female referees and 86.50% (n = 283) male referees, with 67.30% (n = 220) holding national accreditation and 32.70% (n = 107) being regional referees. Data collection involved a personal information form, the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) and the Referee Emotion Regulation Scale (RERS). Statistical analyses, such as Pearson's correlation coefficient, regression analysis, t-tests, and ANOVA, were conducted using SPSS 21 software, with a significance level set at $p < .05$. The results of this study indicated that gender and educational status did not significantly influence mental well-being, Suppression, and Cognitive Reappraisal levels among basketball referees. However, the level of refereeing emerged as a significant variable impacting mental well-being, Suppression, and Cognitive Reappraisal levels. Notably, a positive and significant correlation was observed between mental well-being, Suppression, Cognitive Reappraisal levels, age, and experience of basketball referees. Furthermore, a positive correlation was found between referees' mental well-being and emotional regulation levels, highlighting the interplay between these factors. The findings underscore the importance of prioritizing mental well-being and emotional regulation for enhancing the performance of basketball referees. Furthermore, the study emphasizes the need to nurture these aspects to improve referees' psychological resilience and overall performance. Practical research on mental well-being and emotion regulation in refereeing can contribute significantly to the existing literature, providing valuable insights for referee training and support programs.

1. Introduction

During the competition, referees have to perform multiple tasks under pressure to avoid mistakes in their decision-making and to fulfil their other duties successfully. Under pressure and adverse conditions, referees must evaluate and judge actions during the

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match, make quick decisions, communicate correctly, manage the game, pay attention to multiple aspects of the game, resolve disagreements and problems, and maintain the order of the game [1,2]. From the referees' point of view, they may become concerned about the possibility of making mistakes during a game; this may lead to a loss of confidence, increased anxiety, increased stress levels, burnout and even mood disorders [3–6]. In addition, the decisions made by a referee are subject to spectator, player and club scrutiny before, during and after the competition, especially in popular branches of sport. For this reason, refereeing becomes difficult and wearisome. Despite these negative factors, referees have to perform successfully and show the strength of character [7,8]. In this context, referees must regulate the psychological pressure and variable emotional states they experience during competition. Several studies have concluded that the positive thinking of the referees has a direct positive effect on their performance [2,5,9–12]. In this context, Mental Well-Being and emotional regulation, which are thought to affect the performance of the referees positively, are discussed in this study.

Mental Well-Being is related to both interpersonal aspects (the ability to understand others and to have strong relationships with your peers) and interactive components (getting involved in the community and taking part in hobbies) [13]. Self-esteem and life satisfaction are crucial elements of good mental health and are closely connected to success and happiness [13,14]. People with good mental health demonstrate self-efficacy, make efforts to achieve their objectives and can influence those around them. They usually find meaning and purpose in life and can manage the highs and lows of life events. In addition, they are resilient as they have the skills and resources to cope with complex scenarios [15]. Stewart-Brown [16] noted that Mental Well-Being is more than happy. Stewart-Brown [16] declared that Mental Well-Being involves both the body and mind and involves living in a way that benefits oneself and those around you. Feeling at peace, joyful, confident, and connected to the world are all part of good mental health. A sense of self-esteem and confidence comes with the feeling that one can do something.

Mental Well-Being is considered in two ways: hedonic and eudaimonic well-being. The hedonic approach, also called subjective well-being, is characterized by the regular experience of positive emotions, a reduced incidence of negative emotions, and a high level of contentment with one's life [17]. On the other hand, the eudaimonic approach is based on the principle of self-acceptance, effective communication with other people, being autonomous, finding meaning and purpose in life, and providing personal development by using environmental opportunities [18]. Research has shown that individuals with higher levels of Mental Well-Being have better psychological and physical health and a higher quality of life [19,20]. In addition, it has been found that individuals with high levels of Mental Well-Being have higher levels of creativity and more vital immune systems, establish better connections with others, are more productive at work and often live longer [21]. For example, Karaçam et al. [22] stated in their study that Mental Well-Being positively affects the quality of a referee's performance; Mellick [23] stated that referees with high Mental Well-Being levels also think more accurately under pressure and have higher self-confidence and make more accurate decisions. This research shows that Mental Well-Being is an essential individual, environmental and social factor.

Emotion regulation is about controlling and altering how we respond to things internally and externally. This ensures that our reactions to strong, fleeting emotions are monitored, measured and modified if necessary [24]. Emotional regulation is the conscious effort we make to control our feelings. Generally speaking, emotion regulation covers managing all situations that bring forth an emotional reaction, including attitude, stress and positive or negative emotions [25]. Study shows that dealing with emotions is complicated and ever-changing. It involves how our feelings, ideas and behaviours interact and how they all evolve individually but comes together in unison [26].

Emotion regulation can be described as "the processes that affect what emotions people have when they experience those emotions, how they experience them, and how they express them." According to the process model, emotion can be organized into five stages: selection of the situation, modification of the situation, deployment of attention, change of cognitions and modulation of experiential, behavioural or physiological responses [27].

In selecting the situation, a choice is made; for example, spending time with your friend you enjoy spending time with instead of talking about the match with your referee friends, who are overly anxious about other vital matches, represents a choice of situation. When a referee wants to talk to you about a match, stating that you do not want to talk about the subject also represents a change in the situation. When a conversation becomes annoying while spending time with a friend, it is in the stage of diverting your attention to different things in the environment. When the conversation comes to tomorrow's match again, treating it as "just a match" reflects the Cognitive change. Response modulation involves hiding your emotions or changing the experiential and physiological components of your emotions when you fail in your duties. According to the model, situation selection, situation change, attention orientation, and Cognitive change is antecedent-focused; Response modulation, on the other hand, is response-oriented. Antecedent-focused strategies refer to things we do before response tendencies are fully activated, changing our behaviour and physiological responses. Response-focused strategies refer to what we do if emotion has already started after response tendencies have been established [28]. According to scholarly literature, the emotional regulation of individuals is positively correlated with better psychological and physical health, as well as higher quality of life and work [27,29,30].

Two critical strategies for reducing emotional intensity are Cognitive Reappraisal and Suppression. Cognitive Reappraisal is referred to as Cognitive change because it is antecedent-oriented, while Suppression is referred to as response regulation because it is response-oriented. Cognitive Reappraisal involves changing thoughts about an event to reduce its emotional impact. Suppression, on the other hand, involves preventing ongoing emotionally expressive behaviours [31]. Gross and John [32] conducted a study which found that individuals who utilized the Cognitive Reappraisal technique tended to experience more positive emotions.

On the other hand, those who preferred to use the Suppression strategy tended to experience fewer positive emotions. Despite this, referees are expected to exhibit high emotional Suppression and control. Therefore, referees are anticipated to engage significantly in suppression behaviour.

Based on research in the current literature, basketball referees with high levels of Mental Well-Being and emotional regulation skills

will perform at a higher level by overcoming internal or external obstacles and negativities more easily. However, in a detailed literature review, no study deals with basketball referees' Mental Well-Being and emotional regulation. In this context, basketball referees' Mental Well-Being and emotional regulation levels will be discussed with some demographic variables.

2. Method

2.1. Model

This study utilized a relational screening model to examine the relationship between mental well-being and emotional regulation levels among basketball referees. Although relational studies do not prove the existence of causality in a real sense, it is possible to make inferences about cause-effect correlations with relational studies using advanced statistical techniques [33].

2.2. Study group

The present study employed a convenience sampling method to select participants for the study group. This method was chosen for its ability to collect data quickly and easily based on accessibility and convenience [34]. The study sample consisted of 327 field referees actively involved in refereeing Turkish basketball leagues during the 2021–2022 season and was selected using the accessible sampling method. Of the total sample, 13.50% ($n = 44$) were female, and 86.50% ($n = 283$) were male. Additionally, 67.30% ($n = 220$) of the participants were nationally accredited referees, while 32.70% ($n = 107$) were regional referees. The education level of the participants varied, with 11.30% ($n = 37$) holding a high school-associate degree, 74.90% ($n = 245$) holding a bachelor's degree, and 13.80% ($n = 45$) holding a master's degree. The mean age of the referees was 28.78 years, and their average years of refereeing experience was 7.68.

2.3. Data collection tools

A personal information form as a data collection tool was used in the research, the "Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)" adapted to Turkish by Keldal [35] and Karaçam et al. [29], and the "Referee Emotion Regulation Scale (RERS)" was used. The research was initiated after obtaining approval from the Scientific Research and Publication Ethics Committee of Istanbul Aydın University, Social and Human Sciences, in compliance with the decision numbered 2012/09. Participants were informed about the study during the data collection phase, and their consent was obtained through a consent form prior to the commencement of data collection.

The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS): Originally developed by Stewart-Brown et al. [36] and adapted for use in Turkish by Keldal [35]. The 14-item scale includes psychological well-being and subjective well-being. It is a 5-point Likert-type scale; the lowest 14 and the highest 70 points are obtained from the scale. The internal consistency reliability of the scale was found to be 0.89 with Cronbach's Alpha coefficient. The test-retest reliability correlation coefficient of the scale was found to be 0.83 [35].

Referee Emotion Regulation Scale (RERS): In order to determine the emotion regulation levels of the referees in the study, Karaçam et al. [29] the "Referee Emotion Regulation Scale (RERS)" was used. The scale is in seven-point Likert type and consists of eight items (sample item = I try to think in a way that will help me to stay calm when I encounter a stressful situation in a match where I serve as a referee). The scale has two sub-dimensions: Cognitive Reappraisal (item = 3-5-6-8) and Suppression (item = 1-2-4-7). In the scale, each dimension is evaluated individually. The lowest possible score for each scale dimension is 4, and the highest is 28. In the analyses performed by Karaçam et al. [29], it was seen that the variance explained for RERS was 64.14%. As a result of the analysis of the components, a two-component structure emerged with eigenvalues greater than 1. The alpha internal consistency coefficients for the scale components were found to be 0.83 for the Cognitive Reappraisal factor, 0.76 for the Suppression factor, and 0.76 for the KMO value. As a result of confirmatory factor analysis applied to the scale, it was seen that $\chi^2/sd = 1.603$, RMSEA = 0.07, CFI = 0.96, GFI = 0.93, RMR = 0.10 NFI = 0.90 and IFI = 96. Due to the theoretical structure of the scale, using the sub-dimensions within themselves instead of using them by calculating the total score is recommended.

2.4. Data analysis

The analysis of the data was done using the SPSS 21 program. First, the data set was examined regarding the data analysis's error value, outliers, normality and multiple correlations. Then, Pearson Product-Moment Correlation Coefficient, regression analysis, t -test for pairwise comparisons and ANOVA test for multiple comparisons were used to determine the correlations between variables. The significance level was taken as $p < .05$.

3. Results

When analyzing the averages of the Cognitive Reappraisal and Suppression scores, which represent the sub-dimensions of Mental Well-Being and Emotion Regulation among basketball referees, Table 1 reveals that the obtained scores were deemed to be within a reasonable range ($\bar{X} = 68.49/20.31/23.41$).

Table 2 analyses the correlation analysis results conducted to examine the relationship between mental well-being, Cognitive Reappraisal, Suppression, age, and experience of basketball referees. The findings indicate that mental well-being was positively and significantly correlated with age ($r = .13$) and experience ($r = 0.11$), as well as with Suppression ($r = 0.30$) and Cognitive Reappraisal ($r = 0.25$). In addition, a significant positive correlation was observed between Suppression and age, as well as between Suppression and experience. Finally, a strong and significant positive correlation was found between Suppression and Cognitive Reappraisal ($r = 0.45$). These results suggest that age and experience may promote mental well-being among basketball referees. In contrast, Cognitive Reappraisal and Suppression are associated with better mental health outcomes in this population.

Upon analysis of the outcomes of the multiple linear regression analysis aimed at predicting Mental Well-Being, it becomes apparent that the combined influence of Suppression and Cognitive Reappraisal exhibits a statistically significant relationship with Mental Well-Being ($R = 0.33$, $p < .05$), as depicted in Table 3. Collectively, these variables account for 11% of the variance in Mental Well-Being. Specifically, Suppression ($\beta = 23$, $p < .05$) and Cognitive Reappraisal ($\beta = 0.14$, $p < .05$) emerge as robust and statistically significant predictors of Mental Well-Being. Notably, the standardized regression coefficients (β) highlight that Suppression exerts a stronger influence on Mental Well-Being than Cognitive Reappraisal, indicating their relative order of importance.

Upon analyzing Table 4, which presents the results of the t -tests conducted to analyze the levels of Mental Well-Being, Suppression, and Cognitive Reappraisal of basketball referees based on their refereeing levels, it was determined that there existed no statistically significant differences in Mental Well-Being among basketball referees based on their gender. Furthermore, no significant differences were observed in the levels of Cognitive Reappraisal, Suppression, and gender ($p > .05$).

When analyzing Table 5, which presents the outcomes of an analysis of variance (ANOVA) for the Mental Well-Being, Suppression, and Cognitive Reappraisal levels of basketball referees based on their educational status, no substantial disparity was observed in terms of the Mental Well-Being of basketball referees and their educational background. Furthermore, no statistically significant distinctions were detected between Cognitive Reappraisal, Suppression, and educational status ($p > .05$).

Significant disparities were detected upon analyzing Table 6, which presents the t -test outcomes regarding the Mental Well-Being, Suppression, and Cognitive Reappraisal levels of basketball referees categorized by refereeing levels. Specifically, a statistically significant distinction was observed in the Mental Well-Being of basketball referees across various refereeing levels. Furthermore, a significant divergence was identified concerning the levels of Suppression, and Cognitive Reappraisal states about different refereeing levels. These findings underscore the importance of referee expertise, its impact on mental well-being, and the utilization of adaptive emotional regulation strategies such as Suppression and Cognitive Reappraisal in the context of different refereeing levels.

4. Discussion

Upon examining the average scores of the Mental Well-Being and emotion regulation sub-dimensions, namely Suppression and Cognitive Reappraisal, it was observed that basketball referees had obtained scores at a satisfactory level. This finding is supported by previous studies on referees, such as the research conducted by Karaçam et al. [22], which demonstrated reasonable levels of Mental Well-Being, and the study by Karaçam et al. [37], which showed that Cognitive Reappraisal and Suppression scores were at a reasonable level. These results suggest that referees are in a favourable state regarding their Mental Well-Being and emotional regulation. Individuals who exhibit positive Mental Well-Being possess self-efficacy, which refers to their ability to achieve their goals and influence those around them. Moreover, they demonstrate resilience and possess the necessary skills and resources to manage and overcome stressful situations [15].

In contrast to mere happiness, Mental Well-Being, as asserted by Stewart-Brown [16], positively influences mental and physical proficiency. Moreover, individuals with exceptional emotion regulation skills experience better mental and physical health and improved quality of life and work, as demonstrated by studies conducted by Gross [27] and Tingaz & Altun [30]. Thus, in this context, the referees' sound Mental Well-Being and emotion regulation skills are believed to affect their performance positively.

A positive and significant correlation was found between the Mental Well-Being levels of basketball referees' age and their experience. This situation can be interpreted as basketball referees' Mental Well-Being increases as their age and experience increase. Karaçam et al. [12] and Karaçam et al. [22] found that age and experience positively affect Mental Well-Being, supporting the findings from this current research. Based on other studies, age and experience in refereeing are positive factors for the Mental Well-Being of the referees. When we look at other studies in the literature, supporting studies [38,39] and studies with opposing views [40–42] can be found. It is thought that these different results in the literature are due to the unique structure of the study group.

A positive and significant correlation was found between basketball referees' Suppression and Cognitive Reappraisal levels and age and experience. This can be interpreted as the emotion regulation skills of basketball referees increasing as their age and experience increase. On the other hand, Karaçam et al. [37] found that age and experience did not affect emotion regulation, unlike the study conducted on different branch referees. When we look at the studies outside the referee group in the literature, it was seen that results

Table 1
Mental Well-Being, Cognitive Reappraisal and Suppression Levels of basketball referees.

	N	Min.	Max.	\bar{X}	Std. Deviation
Mental Well-Being	327	43.00	75.00	68.49	6.46
Suppression	327	4.00	28.00	20.31	5.45
Cognitive Reappraisal	327	4.00	28.00	23.41	4.17

Table 2

Correlation between basketball referees' Mental Well-Being, Emotion Regulation sub-dimensions, age, and refereeing experience.

	Age	Experience	Mental Well-Being	Suppression	Cognitive Reappraisal
Age	1	.90 ^a	.13*	.12*	.15 ^a
Experience		1	.11*	.11*	.14*
Mental Well-Being			1	.30 ^a	.25 ^a
Suppression				1	.45 ^a
Cognitive Reappraisal					1

^a $p < .01$, * $p < .05$ (The significance level).**Table 3**

The results of multiple linear regression analysis for predicting Mental Well-Being.

Variable	B	Standard error _B	β	t	p
Constant	57.42	1.98		28.94	.00*
Suppression	.28	.07	.23	4.05	.00*
Cognitive Reappraisal	.28	.09	.14	2.50	.01

 $F = 20.031$, $p = .000$; $R = 0.33$, $R^2 = 0.11$.**Table 4**

T-test results of Mental Well-Being, Cognitive Reappraisal and Suppression levels by gender.

	Male (n = 283)		Female (n = 44)		t	sd	P
	S	S	S	S			
Mental Well-Being	68,34	6,52	69,47	6,07	1,08	325	,28
Suppression	20,50	5,25	19,04	6,57	-1,65	325	,09
Cognitive Reappraisal	23,49	4,00	22,86	5,14	-,938	325	,34

Table 5

ANOVA results of Mental Well-Being, Cognitive Reappraisal and Suppression, according to the education level.

Variables	Group	n	S	Var. K.	KT	sd	KO	F	p	
Mental Well-Being	Associate degree	37	68,70	5,61	Between Groups	45,78	2	22,89	,54	,58
	Bachelor's degree	245	68,30	6,74	Within Groups	13591,95	324	41,95		
	Master's degree	45	69,37	5,53						
	Total	327	68,49	6,46	Total	13637,74	326			
Suppression	Associate degree	37	19,94	4,61	Between Groups	96,72	2	48,36	1,62	,19
	Bachelor's degree	245	20,11	5,51	Within Groups	9619,45	324	29,69		
	Master's degree	45	21,66	5,68						
	Total	327	20,31	5,45	Total	9716,18	326			
Cognitive Reappraisal	Associate degree	37	23,10	3,21	Between Groups	27,03	2	13,51	,77	,46
	Bachelor's degree	245	23,33	4,36	Within Groups	5652,23	324	17,44		
	Master's degree	45	24,11	3,77						
	Total	327	23,41	4,17	Total	5679,26	326			

Table 6

T-test results of Mental Well-Being, Cognitive Reappraisal and Suppression levels, according to the referee level.

	Classification (n = 220)		Province (n = 107)		t	sd	P
	S	S	S	S			
Mental Well-Being	69,24	6,09	66,96	6,95	3,02	325	,00*
Suppression	20,90	5,51	19,10	5,15	2,82	325	,00*
Cognitive Reappraisal	23,81	3,83	22,57	4,71	2,53	325	,01*

were obtained in parallel with the study [43] and contrary to the study [44,45]. These different results in the literature are thought to be due to the unique characteristics of the referee group studied and other groups.

A positive and significant correlation was found between the Mental Well-Being levels of basketball referees and Suppression and Cognitive Reappraisal. This situation indicates that as the Mental Well-Being of the referees increases, their emotion regulation level also increases, and the referees are more successful in regulating their emotions. In addition, referees who can regulate their emotions are in a better mental condition. Despite a detailed literature review, studies have yet to be found that examine the correlation between

the Mental Well-Being of the referees and Suppression and Cognitive Reappraisal. However, studies show that referees with high Mental Well-Being have high self-confidence, resist pressure and display high performance [12,23]. In this context, revealing the emotional regulation dimensions that affect Mental Well-Being is necessary for referees' performance studies. This aspect of the study makes a valuable contribution to the literature.

When we examine the results of multiple linear regression analysis concerning the prediction of Mental Well-Being, we see that Suppression and Cognitive Reappraisal have a significant relationship with Mental Well-Being. However, both Suppression and Cognitive Reappraisal are positive and significant predictors of Mental Well-Being. When we looked at the standardized regression coefficients, we found that Suppression and Cognitive Reappraisal were the two most important predictor variables for Mental Well-Being. We also conducted a detailed literature review and did not find any studies examining the combined effect of Suppression and Cognitive Reappraisal on the Mental Well-Being of basketball referees. Therefore, this study will make a valuable contribution to the literature.

A positive and significant correlation was found between the emotion regulation dimensions of the referees, which are Suppression and Cognitive Reappraisal. Karaçam et al. [29] and Karaçam et al. [37] reached similar results in their studies on referees. This situation can be interpreted as the referees' emotional Suppression and Cognitive Reappraisal levels affecting each other positively. In this context, the Suppression of emotion regulation and Cognitive Reappraisal should not be considered separately.

There was no significant difference between the Mental Well-Being levels of basketball referees and their genders. From this, it can be understood that the gender of basketball referees is not an essential variable in their Mental Well-Being. Karaçam et al. [12] and Karaçam et al. [22] reached similar results in their studies on referees. In this respect, the study is similar to the referee studies in the literature.

There was no significant difference between the Suppression and Cognitive Reappraisal levels of basketball referees and their genders. Karaçam et al. [37] reached similar results in their study on referees in different branches. From this, it can be understood that gender is not an influential variable in the emotion regulation levels of the referees. When we look at the studies outside the referee group in the literature, the results obtained were in parallel with the study [46,47] and contrary to the study [27,48–50]. These different results in the literature are thought to be due to the unique characteristics of the referee group studied and other groups.

There was no significant difference between basketball referees' Mental Well-Being and education levels. Therefore, the educational status of basketball referees is not an essential variable in Mental Well-Being. Contrary to the studies in the literature, in studies with groups other than referees, a significant difference was found between Mental Well-Being and educational status [39,40]. However, in these studies in the literature, there were differences in different education levels. This situation may be related to the unique structure of the sample groups.

No significant difference was found between basketball referees' Suppression and Cognitive Reappraisal levels and their educational status. Karaçam et al. [37], in their study on referees from different branches, found a significant difference in favour of postgraduates between the levels of Cognitive Reappraisal and Suppression and their level of education, contrary to this study. Contrary to the current study, those conducted outside the referee group in the literature concluded that as the level of education increases, the level of emotion regulation increases [43,51,52]. This difference from the previous literature is thought to be due to the unique structure of the sample group studied.

It was observed that there was a significant difference between the Mental Well-Being levels of the basketball referees and the referee's levels. In this context, the level at which they are refereeing can be interpreted as an essential variable in the Mental Well-Being of basketball referees. However, in the detailed literature review, no study was found that examines the difference between the Mental Well-Being levels of the referees and their levels. Therefore, this aspect of the study contributes to the literature.

It has been observed that there is a significant difference between the Suppression and Cognitive Reappraisal levels of basketball referees and the refereeing levels in favour of the elite or higher-level referees. However, Karaçam et al. [37], in their study on referees from different branches, found no difference between the levels of refereeing, Cognitive Reappraisal and Suppression, contrary to this study. In this respect, the study differs from the study in the literature. This difference in the literature is thought to be due to the unique structure of the sample group studied.

5. Limitations

This study describes the positive attitudes of basketball referees towards Mental Well-Being and emotional regulation at a perceptual level. In addition, we examine the demographic variables that may impact these attitudes, including gender, age, seniority, education level, and refereeing level. We only included referees authorized by the basketball federation in our research. As the referees were busy with matches, we administered the questionnaire through online forms for those we could not meet in person.

6. Conclusion

This study has shown that the gender and educational status of basketball referees are not important variables in measuring Mental Well-Being, Suppression and Cognitive Reappraisal levels. However, it has been observed that the refereeing levels of basketball referees are an essential variable in Mental Well-Being, Suppression and Cognitive Reappraisal levels. A positive and significant correlation was found between basketball referees' Mental Well-Being, Suppression and Cognitive Reappraisal levels, age and experience. In addition, it was observed that there was a positive correlation between the Mental Well-Being of the referees and their emotional regulation levels. In this context, it was concluded that basketball referees' emotion regulation skills and Mental Well-Being levels would directly affect each other.

According to the results, it is believed that Mental Well-Being and the ability to regulate emotions are crucial for enhancing the performance of referees and boosting their psychological and mental strength. Therefore, basketball referees' Mental Well-Being and emotional regulation states are descriptively discussed in this study. In other studies, practical studies on Mental Well-Being and emotion regulation may contribute to the literature.

Author contribution statement

Aydın Karaçam; Bekir Erhan Orhan; Ali Selman Özdemir; Alpar Aser Sabuncu; Claudiu Mereuță: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Data availability statement

Data will be made available on request.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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