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Stressors and coping style among volleyball referees in the Northern Border region



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ABSTRACT

The purpose of this study is to assess the impact of sports stressors and coping strategies among volleyball referees during match management. Although psychological stressors are inherited in the sports arena, research in controlling or limiting stressors among athletes in multiple sports settings are rapidly growing field of sports literature. However, stressors faced by volleyball referees have received less attention from researchers. This study attempts to develop a framework for identifying the most stressful situations experienced by volleyball referees during matches. Participants were a straightforward sample consisting of 18 volleyball male referees registered in the Saudi Volleyball Federation at the Northern Border region. A Stressors of Volleyball Referee Survey (SVRS) was designed and applied, which consisted of five dimensions based on sources of stress: players, coaches, spectators, mass media, and officiating-technical pressure; these dimensions contain a total of 38 items presented. Results found that all the main and subdimensions items for SVRS correlation coefficients ranged between 0.639 and 0.798, which were statistically significant at the level of stability of 0.01. Data revealed that the dimension of officiating-technical pressure ranked as the highest psychological stressor of the total scale's dimensions with an average of 19.78, whereas the lowest ranking score of the total scale's dimensions was the coaches' pressure dimension with an average of 19.56. The study recommended that future studies should apply an intervention program that trains volleyball referees to gain confidence and maintain resilience in order to cope with all stressors faced during matches.

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1. Introduction

Sports refereeing in general and in volleyball particularly is one of the activities that have a permanent connection with psychological pressure (VanYperen, 1998). The referee's honesty is often subject to accountability and questioning the integrity of athletes in general (coaches, players, administrators, fans, and media). Indeed, most athletes' perceptions of referees often tend to be negative, and they commonly relate their failure in competition as it's caused by referees' mistakes. Referees also expose to unjustified criticism by the media repeatedly. Nevertheless, on the other hand, the winning team are rarely mentioning the referee's success in managing the match.

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© Corresponding author's ORCID profile: https://orcid.org/0000-0002-9425-4559 2313-626X/© 2022 The Authors. Published by IASE. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/) officiating-technical pressure (Nevill et al., 2002).

Despite the fact that good referee's decisions will increase the enthusiasm of the players and encourage their effort to obtain better results, which contributes effectively to fans' enjoyment of watching the match. However, mistakes, pressure, and stressors are part of the match, and it's common

Psychological stress is one of the manifestations of sports performance, which many referees are exposed to as a natural result of focusing on success in leading the game or avoiding failure, and because their decisions are highly scrutinized and can influence the results achieved by athletes and teams. In fact, the inability to control emotions or loss of self-confidence leads to more mistakes committed by referees frequently (Gomes et al., 2021). Most studies indicate that the inability to reach the best performance is caused specifically by distracting attention due to psychological stressors. There are many aspects of psychological stressors that contributed to referees' experience during the match, such as players' pressure, coaches' pressure, spectators' pressure, mass-media pressure, and that volleyball referees bear a great burden due to many factors, including the great popularity of volleyball, the importance of the match, and match timing, which requires that referee is to be physically and mentally fit (Webb, 2017). Therefore, good management of the match means that the referee has good resilience ability, great focus attention, and taking the right decision on time as well (Bulgurcuoglu, 2020). Most studies focus on athletes' stress, instead, still few works concern the frequency and intensity of the major sources of stress and coping strategies experienced by sports referees (Briganti et al., 2018; Voight, 2009).

1.1. Research objectives

The study objective was to determine the psychological factors that volleyball referees are exposed to during matches management and the extent to which these factor impact referees' performance through the following:

- Defining common stressors among referees in general, and particularly volleyball referees.
- Assessing the impact of psychological stressors on volleyball referees' decision-making when referees expose to multivariant pressure like players' pressure, coaches' pressure, spectators' pressure, mass-media pressure, and officiating-technical pressure.
- Provide a set of recommendations that explain the phenomenon of psychological stressors that volleyball referees repeatedly experience during matches.

1.2. Importance of the study

The importance of this study is to offer guidelines for researchers, practitioners, and consultants in the field of sports psychology about common stressors that impact the volleyball referees' decision, which has not been sufficiently addressed, whether local or regional sample. Therefore, this study determined multivariance pressure and the effect size of each, such as players' pressure, coach pressure, spectators' pressure, mass-media pressure, and officiating-technical pressure as well.

1.3. Research problems

Volleyball referees are exposed to pressurerelated match management. They, therefore; frequently commit mistakes that directly affect match results, which is reflected in team players and coach tensions, spectators' commotion, and massmedia critique pressure as well. Thus, this study aimed to classify and assess the common stressors on volleyball referees based on five sources of pressure, which have been well documented in sports psychology literature as sources of stressors faced by all sports referees in general.

1.4. Research questions

This study sought to provide answers to the main and sub-questions through the following:

- What are the psychological stress factors affecting volleyball referees during match management in the northern border region of Saudi Arabia? Several sub-questions emerged of the main question, as follows:
 - What are the types of psychological stressors experienced by volleyball referees in the sports field?
 - What are the types of psychological stressors faced by volleyball referees during match management?
 - Is there a relationship between the level of physical and mental fitness of volleyball referees and their coping strategies for psychological stressors?

1.5. Study terminology

Many external factors cause stress which affects individuals' psychological state and makes them in a state of tension and anxiety, which negatively affects the ability to achieve integration and balance in the personality. In addition, stress leads to the loss of emotional balance and the emergence of new behavioral patterns that more likely result in an individual's fall beyond the limits of ability. Thus, personality is considered an essential component of the performance profile of referees and is required in the context of efficient game management (Dodt et al., 2022).

Stress is also a combination of three important factors; It is the external environment in which the individual lives, and the negative feelings and sensations that control the individual, in addition to the set of physiological responses issued by themselves, so that psychological stress appears when these factors interact with each other in special ways, to produce in turn cases of anxiety, depression, and tension that control the individual.

The challenge is to understand psychological stressors into more precise concepts, where adaptation and maladaptation in relation to mental and physical disorders will be better understood. Monroe and Slavich (2016) described psychological stressors as social and physical environmental circumstances that challenge the adaptive capabilities and resources of an organism.

2. Literature review

Referees need to have a good reputation before and after carrying out their role as court judges (Abdulgani et al., 2021), they are obligated to an essential role in sports competitions because it involves ensuring that the sporting activity takes place fairly and safely according to the sporting rules

and regulation. A referee has to make decisions (sometimes crucial) in a very short period of time and is highly exposed to criticism and pressure from players, coaches, spectators, and media (Nogueira, et al., 2022).

A study by Samuel (2015) aimed to present a psychological preparation framework for 8 elite soccer referees, which was designed for the demanding tasks, based on 4 factors:

- 1. Decision-making,
- 2. Game management,
- 3. The referee crew, and
- 4. Referee evaluation.

Results showed for the decision-making factor that referees make 200 decisions per match. Of these decisions, 64% were based on communication with the assistant referees. For the game management factor, referees indicated that effective gamemanagement qualities were reflecting on the game appropriately, allowing the game to flow, and using the whistle only when the consequences affect the match tempo. For the referee crew factor, the result emphasizes the importance of verbal and physical interaction between the referee and assistants for the match so that they all "speak the same language," and adhere to the referee's game-management style and decision-making process. While, in the referee evaluation factor, the referee should also handle constructive criticism provided by the observer, pertaining to his or her performance, they also need to cope with the public-media-associated scrutiny which may arise after a poor performance. Stewart and Ellery (1998) examined the sources and magnitude of perceived psychological stress in high school volleyball referees. After components analysis with varimax rotation, they identified four factors: Fear of failure, time pressure, interpersonal conflict, and fear of physical harm.

Mohammad and Saheb (2017) performed a research investigation to identify the psychological stressors that football referees are exposed to in Iraq by the media, and the extent to which would reflect on their level of performance in matches. Among 174 football referees, 120 referees participated. The researcher reached some conclusions, and most important that football referees in Iraq who were exposed to media pressure were inversely related to their level of performance.

Al-Nazari (2012) sought to know the psychological stress caused by the sports press on the first-class football referees in the Yemeni league, this study also sought to provide an appropriate vision to confront the psychological stress caused by sports press on referees in order to suggest an appropriate solution. The researcher used a descriptive approach to reveal the most important factors that cause psychological stress by sports press among football referees, using a scale designed by the researcher that consists of 50 phrases, which was applied to a sample of 62 football referees. Results showed that there are statistically significant

differences in the degree of psychological stressors caused by sports press depending on the referee's age and experience, the most important recommendations were the need to focus on the psychological aspects of the rulers in addition to the physical and technical aspects when choosing the new referees.

3. Theoretical framework

3.1. Psychological stress among athletes

There is no doubt that the referee is subject to a variety of psychological stressors during the match, whether they are players, fans, or even sports media. In the sports community, the outlook of the referee is mostly negative; where they tend to receive unjustified criticism and directed attack in some cases, where psychological stress has become a feature of contemporary life.

It was also considered that psychological stress happens as a result of the individual's failure to adapt to the demands imposed on most cases, and this makes an individual more vulnerable to psychological, physical, and cognitive problems. Nevertheless, individual differences are important for referee selection, development, and performance evaluation (Avugos et al., 2021). Individual differences in personality are related to job performance in sports, especially with regard to coping with pressure and stress. Noticing that not all potential effects of stress are negative, but rather they can be at some level positive as it pushes the individual to perform well and achieve targeted goals. So, psychological stressors lately prompted researchers to increase their interest in studying stress and trying to know the sources of predicting it, and strategies for dealing with it.

3.2. The concept of psychological stressors

Psychological stressors can be viewed from different conceptual angles.

3.2.1. Psychological stress as stimuli

The theory of stress as a stimulus was introduced in the 1960s and viewed stress as a significant life event or change that demands response, adjustment, or adaptation. The stress as stimulus theory assumes: (1) Change is inherently stressful, (2) Life events demand the same levels of adjustment across the population, and (3) There is a common threshold of adjustment beyond which illness will result. So, psychological stresses are seen as stimuli, where the stressor event is focused on as an independent factor whose impact varies from one person to another.

3.2.2. Psychological stress as the response

Stress as a response model was initially introduced by Selye (1956) who described stress as

a physiological response pattern and was captured within the general adaptation syndrome (GAS) model. This model describes stress as a dependent variable and includes three concepts:

- 1. Stress is a defensive mechanism,
- 2. Stress follows the three stages of alarm, resistance, and exhaustion, and
- 3. If the stress is prolonged or severe, it could result in diseases of adaptation or even death.

Thus, psychological stress is a response to environmental conditions, where psychological stress is seen within this field as the individual's reaction to a stressful stimulus in the environment, and then psychological stress can be defined according to this field as the physiological and psychological response that the individual performs in the face of an external event or situation.

3.2.3. Psychological stress as an interaction perspective

The interactional approach to defining stress focuses on the interaction between the person and his or her environment which gives rise to cognitive-emotional reactions. This field focuses on the importance of communication between the internal processes that the individual performs when facing external stimuli. Within this field, stress can be defined as the process of evaluating events, are they harmful, threatening, or challenging? and the response to these events is in the pattern of emotional and behavioral changes Physiological and cognitive.

3.2.4. Psychological stress as an emotional state

This field focuses on psychological stress due to emotional state disorder, that psychological stress is the outcome of constant communication between each individual and the various elements of the surrounding environment, which may lead to an emotional state that affects the physical and emotional energies of the individual.

3.3. Sources of psychological stress

It is difficult to enumerate the sources and causes of psychological stress in a specific classification as a result of their abundance, diversity, and differences from one individual perception to another, and from one age stage to another (Salleh, 2008), indeed sources of stress are different from one environment to another, where social and cultural factors perform an important role on the trigger of sources of stress (ALqadoumi and Hafez, 2016). So, many research applications had different classifications based on understanding and studying stress paths, perhaps; some studies classified sources of stress into personal and environmental, and another research classification divided stressors into internal and

external sources of stress. Other classifications can be based on its fields exhibition of sources of stress such as work, academic, financial, family, and health.

3.4. Causes of psychological stress

Researchers mostly grouped causes of psychological stress into three main categories (Mohammad and Saheb, 2017): First: Psychosocial factors: Focus on the lifestyle, and what it includes factors such as the degree of adaptation, excessive fatigue, frustration, and deprivation. Second: Organic (biological) environment factors: Include factors such as organic balance and lack thereof, degree of disturbance, nature of nutrition, heat, and cold. Third: Personal factors: Represented in selfawareness, anxiety, the urgency of time, feeling out of control, anger, and aggression.

3.5. Types of psychological stress

Researchers differed in determining the types of psychological stress, according to the criteria they used in classifying it. Psychological stress is classified into two types (Mohammad and Saheb, 2017): (1) Chronic (long-term) stress is the threatening, harmful, or challenging experience that the individual is exposed to for an extended time period (Anshel, 1996). Psychotherapist Lazarus (2000) cited that chronic stress occurs when situations become impossible to deal with, when individuals give up trying to overcome adversity, and when they experience life threatening-related diseases, whether they are physical (e.g., Disability, Skin Cancer, Diabetes) or psychological (e.g., depression, Bipolar Disorder, Schizophrenia). (2) Acute (short-term) stress, on the other hand, is a person's response to a sudden event or stimulus viewed by a person as unpleasant or taxing (Anshel, 1990; Lazarus and Folkman, 1984). According to Lazarus (2000), acute stress occurs when a situation hampers individual plans or negatively affects a person's daily roles, but tends to be manageable, such as transportation problems that make a person late for work or miss a deadline. Common symptoms associated with acute stress include worry, anger, irritability, anxiety, fatigue, headaches, back pain, blood pressure, increased rapid heartbeat. heartburn, confusion, and mindlessness (Lazarus, 2000).

3.6. Research limitations

This study is limited to the following boundaries:

- Subject limitation: The volleyball referee level 2 registered within Saudi Volleyball Federation.
- Time limitation: The time of study application during the first semester of the academic year 2021/2022.
- Spatial limitation: The volleyball referees at the Northern Border region Welfare Office.

4. Methodology

4.1. Participants

Participants were straightforward samples consisting of 18 volleyball male referees classified as level 2 referees of the Saudi Volleyball Federation and registered at the Northern Border region office according.

4.2. Instrumentation

Participants completed the Stressors of Volleyball Referee Survey (SVRS) which was designed by the researcher, and this survey was implemented among volleyball referees to assess psychological stressors that referee experience during matches. The SVRS consisted of five dimensions based on sources of stress: Players' pressure, coaches' pressure, spectators' pressure, mass-media pressure, and officiating-technical pressure; these dimensions contain a total of 38 items presented.

4.3. Statistical analysis

A descriptive statistic was reported for participants' demographic by SPSS, where t-test and limner regression were administered to determine the mean (m) and standard deviation (SD) of total SVRS-38 items, which included separated scores (m, SD) for players pressure-10 items, coaches' pressure-9 items, spectators' pressure-7 items,

mass-media pressure-5 items, and officiating-technical pressure-7 items. Pearson's Correlation Coefficient (R) also observed the relationship between the level of physical and mental fitness of volleyball referees and their coping strategies over psychological stressors.

4.4. Practical procedures

The following set of actions have been taken:

- List of 38 survey items forms: The list of the survey has been defined in its final form, consisting of all five dimensions: Players' pressure, coaches' pressure, spectators' pressure, massmedia pressure, and officiating-technical pressure.
- The arbitrators' sincerity: To ensure the validity of the questionnaire, the questionnaire was presented to 3 experts and arbitrators who specialized in the field of sports arbitration. The Cooper equation was also used to reach a measurable rate and percentage of agreement between the groups of arbitrators, where the percentage of the actual agreement reached for the resolution (95.00%), which is a very high percentage that indicates the validity of the SVRS-38 survey.
- Internal consistency validity: For the sake of the quality of the study, the researcher was keen to verify the internal consistency coefficient of the questionnaire by measuring it according to Table 1.

Table 1: Correlation coefficients for the study questionnaire

Item	Correlation coefficient of the item-statement to	Item	Correlation coefficient of the item-statement to	
rtem	the total score of all dimensions	Ittili	the total score of all dimensions	
1	0.697	20	0.689	
2	0.772	21	0.787	
3	0.687	22	0.765	
4	0.729	23	0.763	
5	0.765	24	0.744	
6	0.639	25	0.753	
7	0.759	26	0.783	
8	0.659	27	0.769	
9	0.753	28	0.778	
10	0.798	29	0.791	
11	0.759	30	0.749	
12	0.739	31	0.749	
13	0.677	32	0.789	
14	0.793	33	0.776	
15	0.796	34	0.782	
16	0.697	35	0.774	
17	0.739	36	0.768	
18	0.761	37	0.792	
19	0.747	38	0.766	

It is evident from Table 1 that the degrees of the correlation coefficients for the responses between the questionnaire statements, and the final total score for each item ranged between 0.639 and 0.798, which are all statistically significant at the level of stability (0.01), and accordingly, it is considered significant, the coherence of the questionnaire statements; is characterized by effective internal consistency. Calculating the stability of the resolution: The set of simple correlation coefficients (Pearson coefficient) was obtained between all

degrees of the two halves of the resolution, which were corrected by the (Spearman-Brown) equation, and the researcher was keen to apply the Guttmann equation to calculate the stability of the resolution according to Table 2.

The values in Table 2 showes that the resolution inquires a high degree of stability, and this indicates that the available values are appropriate to a large extent, and can be procedurally reliable, as well as have validity and applicability, distribution, and actual analysis.

Table 2: Values of reliability coefficient for a questionnaire using the split-half method

Questionnaire	Stability with Pearson's coefficient	Stability coefficient (Spearman-Brown)	Guttmann parameter
Items	0.761	0.815	0.837

5. Result

The result of five dimensions and sub-dimensions of SVRS-38 items were presented by each dimension in this applied study separately as the following.

5.1. The role of players' pressure on volleyball referees' stressors

The average ranks were calculated in Table 3 for the 10 items related to players' pressure dimension, result showed that the total of the dimension and the total degree of the scale were statistically significant differences at 0.001, where the highest average rank in the players pressure dimension was 19.71 to the item: "Player pretending an injured to disrupt the match," which noted that was ranked 1st on the dimension level and ranked 14th on the scale. Whereas the lowest average ranking in the players' pressure dimension was 19.34 for the item: "Player objecting on referee' decisions," which was ranked as the last ranking item on the dimension and on the scale as well.

5.2. The role of coaches' pressure on volleyball referees' stressors

It is clear from Table 4 that the average ranks of the coaches' pressure dimension 9-items have varied, where the highest average score was 19.76 for the item: "Coach arguing with referees," and it was ranked 2^{nd} on the scale, whereas the lowest average level of ranking 19.38 was the item: "Coach shouting on team member."

5.3. The role of spectators' pressure on volleyball referees' stressors

In Table 5, data was calculated on average ranks for 7-items spectators' pressure dimension to the total degree of the scale by applying a Friedman Test at significance level 0.001, where the highest average was 19.75 for the item: "Spectators disturbing opponents' ball serving," which noted that item ranked 1 at the dimension and ranked 3rd on the scale. While item: "Spectators shouting toward referees" was ranked the last one on the dimension and the 36th on the whole scale.

Table 3: Average and correlation coefficient (stressors caused by players' pressure on volleyball referees)

#	Items	Average	Correlation coefficient
1	Players object to the referee's decisions.	19.34	0.678
2	Players doubt referee decisions related to the ball in or out of the court.	19.47	0.656
3	Players doubt on referee's decision related to touching the net.	19.53	0.718
4	Players show a lack of respect and appreciation for the referee.	19.59	0.812
5	Players pretend an injured to disrupt the match.	19.71	0.767
6	Players verbally abuse their opponents.	19.53	0.779
7	Players physically interfere with opponents.	19.49	0.758
8	Players object to net referees' decisions.	19.57	0.769
9	Players object side lines referees' decisions.	19.68	0.783
10	Players committing violent and aggressive behavior on the court.	19.71	0.748

Stability coefficient: 0.913

Table 4: Average and correlation coefficient (stressors caused by coaches' pressure on volleyball referees)

#	Items	Average	Correlation coefficient
11	Coaches object to the referee's decisions.	19.67	0.687
12	Coaches critique the referee's decisions.	19.55	0.661
13	Coaches shout at the referee.	19.39	0.739
14	Coaches shout a team member.	19.38	0.838
15	Coaches show a lack of respect and appreciation for the referee.	19.53	0.739
16	Coaches argue with referees.	19.76	0.751
17	Coaches' body language shows disrespect.	19.48	0.738
18	Coaches object to net referees' decisions.	19.57	0.813
19	Coaches object to sidelines referees' decisions.	19.71	0.767

Stability coefficient: 0.936

Table 5: Average and correlation coefficient (stressors caused by spectators' pressure on volleyball referees)

#	Items	Average	Correlation coefficient
20	Spectators show verbal and moral disrespect to the referees.	19.67	0.687
21	Spectators throw objects at the referees.	19.55	0.661
22	Spectators throw objects at the players.	19.39	0.739
23	Spectators shout at referees	19.38	0.838
24	Spectators bother side lines referees.	19.53	0.739
25	Spectators disturb opponents' ball serving.	19.75	0.751
26	Spectators' commotion disrupts the match.	19.45	0.762

Stability coefficient: 0.936

5.4. The role of mass-media pressure on volleyball referees' stressors

The average ranks for the 5-items mass-media pressure dimension to the total score of the whole scale showed a significant difference between the possibilities of answers at level 0.001 (Table 6). Where the highest average of 19.78 ranks was reached for the item: "Mass media doubting of referees' ability on managing the match," and it was noted that it ranked 1st within the dimension and 3 on the scale as a whole. Whereas the lowest average of 19.39 ranks was reached for the item: "Mass media criticism on volleyball referees."

5.5. The role of officiating-technical pressure on volleyball referees' stressors

It is evident from Table 7 that the average ranks for the 7 items of the officiating-technical pressure dimension to the whole level of the survey. Result revealed a significant difference at 0.001, where the item: "Committing wrong decision makes me think about it all the time," scored the highest average rating of 19.78, while; the item: "Controlling the emotions become hard when fans were agitated," scored the lowest average rating of 19.

Table 6: Average and correlation coefficient (stressors caused by mass-media pressure on volleyball referees)

#	Items	Average	Correlation coefficient
27	Mass media criticism of volleyball referees	19.39	0.671
28	Mass media doubting of referees' ability on managing the match	19.7 <i>4</i>	0.635
29	Mass Media acquiring of changing referees before matches played	19.61	0.742
30	Mass media provoking fans to put more pressure on referees.	19.45	0.859
31	Mass media purposely broadcast referees' previous mistakes.	19.67	0.756

Stability coefficient: 0.931

Table 7: Average and correlation coefficient (stressors caused by officiating-technical pressure on volleyball referees)

#	Items	Average	Correlation coefficient
32	Admitting mistake make players and coaches boldness at me	19.57	0.668
33	Feeling anxious about colleagues' opinions of my refereeing performance	19.62	0.619
34	Controlling emotions become hard when fans were agitated	19.53	0.752
35	Distracting the attention when the assistant referees are new.	19.40	0.848
36	Doubting of decision when it contradicts the assistant referee	19.72	0.718
37	Committing the wrong decision makes me think about it all the time.	19.78	0.764
38	Objecting to decisions repeatedly affects my next decisions.	19.43	0.791

Stability coefficient: 0.975

6. Discussion

The study showed researcher's endeavor was to identify the factors affecting the psychological stressors faced by volleyball referees in the northern region of Saudi Arabia. When they are exposed to the pressure of players, coaches, spectators, mass media, and officiating-technical pressure respectively. The research tool (SVRS-38) was calculated to verify the existence of strong internal consistency of stabilization, and awareness of stability, and the responses indicated that the measurement tool is suitable to a high degree, and the study reached several results as follows.

The results of the study showed that the dimension of officiating-technical pressure ranked as the highest psychological stressor of the total scale's dimensions. This indicated the following factors: (a) Referees feel anxious about not being able to officiate well during matches. (b) Referees confirmed that the bonuses are not worth the physical and psychological effort they exert during match officiating. (c) Many referees feel nervous as a result of disrespect received from players, coaches, and administrators during matches. A similar study by Weinberg and Richardson (1990) asserted that 45% of basketball referees exposed to psychological pressure lead to muscular tension and high blood pressure due to match officiating. Moreover, many studies reported that the most important psychological stress factors for football referees linked to sports competition as represented in personal conflict (dealing with a bad player and Fear of physical harm) (Taylor et al., 1990; Al-Tahayneh, 2006; Jaber, 2007). Other studies have mentioned that some top psychological stressors (e.g., Receiving intentional physical abuse and receiving intentional verbal harshness) are considered among the major factors that push referees for burnout and quit, which confirmed the repeated concern issues that referees faced cross-sports, especially during matches (Anshel et al., 2013; Kilani et al., 2013; Johansen, and Haugen, 2013).

For this scale (SVRS-38), the lowest ranking score was the coach's pressure dimension. This may be due to the following factors: (a) Coaches are leaders who respect rules and decisions. (b) Coaches have no time for arguing or objecting referee decisions, they spend all match time guiding and directing their team. (c) Coaches maintain stress resilience skills during matches. (d) Coaches usually regulate and control their emotions. (e) Coaches provide such justifications as a form of rationale after the decision has been made (De Backer et al., 2018). Many studies described coach traits as emotional maturity, selfconfidence and ambition, ability to express and communicate easily, and good knowledge of the rules, regulations, and laws of the game (Lee et al., 2018).

7. Recommendations

- The study recommends the need to reduce the factors of anxiety and psychological stress affecting volleyball referees by reducing the negative effects of stress factors from players, coaches, spectators, sports media, and sports officiating mistakes.
- Acknowledge public opinion and the media about the game's regulations and rules to avoid angry reactions during matches.
- Continuously increasing the training programs to improve referees' skills.
- Paying attention to physical and mental fitness programs is an important factor to overcome mistakes during matches.
- Conducting more studies and research on psychological stress on referees during their performance in matches.
- Volleyball Sports Federation should play a big role in developing, supporting, and providing cover insurance for referees to face psychological stressors during the performance of their duties.

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Compliance with ethical standards

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

- Abdulgani R, Mulyana D, ad Badaru B (2021). The effect of endurance, eye-hand coordination, and confidence to volleyball referee performance in West Java. International Journal of Human Movement and Sports Sciences, 9(3): 436-444. https://doi.org/10.13189/saj.2021.090307
- Al-Nazari M (2012). Measure the psychological pressure caused by sports journalism on football referees by years of arbitration. Sciences Journal of Physical Education, 5(1): 385-400.
- ALqadoumi AA and Hafez M (2016). Sources of competition stress and coping strategies among high level team sports in Palestine. An-Najah University Journal for Research-B (Humanities), 30(7): 1405-1432.
- Al-Tahayneh ZL (2006). Sources of stress and intention to terminate among Jordanian referees. The Educational Journal, University of Kuwait, 21(81): 11-35.
- Anshel M (1996). Coping styles among adolescent competitive athletes. The Journal of Social Psychology, 136(3): 311-323. https://doi.org/10.1080/00224545.1996.9714010 PMid:8758614
- Anshel MH (1990). Toward validation of the COPE model: Strategies for acute stress inoculation in sport. International Journal of Sport Psychology, 21: 24-39.

- Anshel MH, Kang M, and Jubenville C (2013). Sources of acute sport stress scale for sports officials: Rasch calibration. Psychology of Sport and Exercise, 14(3): 362-370. https://doi.org/10.1016/j.psychsport.2012.12.003
- Avugos S, MacMahon C, Bar-Eli M, and Raab M (2021). Interindividual differences in sport refereeing: A review of theory and practice. Psychology of Sport and Exercise, 55: 101926. https://doi.org/10.1016/j.psychsport.2021.101926
- Briganti P, Varriale L, and Ferrara M (2018). Stress and sport: Organizational practices to support referees forcoping stress. Giornale Italiano di Educazione alla Salute, Sport e Didattica Inclusiva, 2(3): 74-82.
- Bulgurcuoglu AN (2020). Determination of the psychological resilience levels of handball coaches according to various variables. Progress in Nutrition, 22(Supplement 2): e2020013.
- De Backer M, Reynders B, Boen F, Van Puyenbroeck S, and Vande Broek G (2018). Do coaching style and game circumstances predict athletes' perceived justice of their coach? A longitudinal study in elite handball and volleyball teams. PLOS ONE, 13(10): e0205559.

https://doi.org/10.1371/journal.pone.0205559

PMid:30321213 PMCid:PMC6188870

- Dodt M, Fasold F, and Memmert D (2022). Personality profile of team handball referees at expert level. German Journal of Exercise and Sport Research, 52(1): 58-67. https://doi.org/10.1007/s12662-021-00759-x
- Gomes AR, Fontes LMC, Rodrigues M, and Dias B (2021). Burnout in referees: Relations with stress, cognitive appraisal, and emotions. International Journal of Psychology and Behavior Analysis, 7: 177. https://doi.org/10.15344/2455-3867/2021/177
- Jaber R (2007). Evaluation study of the phenomenon of combustion psychological coach. Al-Aqsa University Journal: Humanities Series, 11(1): 129-151.
- Johansen BT and Haugen T (2013). Anxiety level and decisionmaking among Norwegian top-class soccer referees. International Journal of Sport and Exercise Psychology, 11(2): 215-226. https://doi.org/10.1080/1612197X.2013.773665
- Kilani OW, Altahayneh ZL, and Oudat MA (2013). Sources of stress and intention to quit among sport officials in Jordan. European Journal of Social Sciences, 38(3): 365-373.
- Lazarus J (2000). Stress relief and relaxation techniques. NTC/Contemporary Publishing Group, Los Angeles, USA.
- Lazarus RS and Folkman S (1984). Stress, appraisal, and coping. Springer Publishing Company, New York, USA.
- Lee H, Wäsche H, and Jekauc D (2018). Analyzing the components of emotional competence of football coaches: A qualitative study from the coaches' perspective. Sports, 6(4): 123. https://doi.org/10.3390/sports6040123

PMid:30360530 PMCid:PMC6316169

- Mohammad MS and Saheb SJ (2017). The psychological pressures undergone by football referees in Iraq by visible media and their reflection on their performances. Al Qadisiya Journal for the Sciences of Physical Education, 17(2): 40-47.
- Monroe SM and Slavich GM (2016). Psychological stressors: Overview. In: Fink G (Ed.), Stress: Concepts, cognition, emotion, and behavior: Handbook of stress series: 109-115. Academic Press, Cambridge, USA. https://doi.org/10.1016/B978-0-12-800951-2.00013-3
- Nevill AM, Balmer NJ, and Williams AM (2002). The influence of crowd noise and experience upon refereeing decisions in football. Psychology of Sport and Exercise, 3(4): 261-272. https://doi.org/10.1016/S1469-0292(01)00033-4
- Nogueira D, Fontes L, Gomes AR, and Resende R (2022). Referees' emotions and performance perception: The importance of stress and cognitive appraisal. Cuadernos de Psicología del Deporte, 22(2): 156-170.

https://doi.org/10.6018/cpd.468751

- Salleh MR (2008). Life event, stress and illness. The Malaysian Journal of Medical Sciences, 15(4): 9-18.
- Samuel RD (2015). A psychological preparation framework for elite soccer referees: A practitioner's perspective. Journal of Sport Psychology in Action, 6(3): 170-187. https://doi.org/10.1080/21520704.2015.1065938
- Selye H (1956). The stress of life. McGraw-Hill, New York, USA.
- Stewart MJ and Ellery PJ (1998). Sources and magnitude of perceived psychological stress in high school volleyball officials. Perceptual and Motor Skills, 87(3_suppl): 1275-1282. https://doi.org/10.2466/pms.1998.87.3f.1275
 PMid:10052089
- Taylor AH, Daniel JV, Leith L, and Burke RJ (1990). Perceived stress, psychological burnout and paths to turnover intentions

- among sport officials. Journal of Applied Sport Psychology, 2(1): 84-97. https://doi.org/10.1080/10413209008406422
- VanYperen NW (1998). Predicting stay/leave behavior among volleyball referees. The Sport Psychologist, 12(4): 427-439. https://doi.org/10.1123/tsp.12.4.427
- Voight M (2009). Sources of stress and coping strategies of US soccer officials. Stress and Health: Journal of the International Society for the Investigation of Stress, 25(1): 91-101. https://doi.org/10.1002/smi.1231
- Webb T (2017). Elite soccer referees: Officiating in the premier league, La Liga and Serie A. Routledge, London, UK. https://doi.org/10.4324/9781315656809
- Weinberg RS and Richardson PA (1990). Psychology of officiating. Leisure Press, Champaign, Illinois, USA.