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## STRESS AND FRUSTRATION TOLERANCE ON OFFICIATING PERFORMANCE AMONG ELITE FOOTBALL REFEREES IN NIGERIA

<sup>1a</sup>Joseph Odey Ogabor, <sup>2</sup>Agnes James Ekpo,  
<sup>3</sup>Martina Ayibeya Apie, <sup>4</sup>Sanusi Mohammed,  
<sup>5</sup>Peter Owogoga Aduma & <sup>6</sup>Aminu Shantali Shuaibu

<sup>1a,2,3,5</sup>Department of Human Kinetics & Health Education, University of Calabar, Nigeria

<sup>4</sup>Nigeria Football Federation, FCT, Abuja, Nigeria

<sup>6</sup>Department of Human Kinetics & Health Education, Shehu Shagari University of Education, Sokoto.

Email: <sup>2</sup>[agneseokpo08@gmail.com](mailto:agneseokpo08@gmail.com); <sup>3</sup>[martinaapie@gmail.com](mailto:martinaapie@gmail.com); <sup>4</sup>[mohaisan62@gmail.com](mailto:mohaisan62@gmail.com);

<sup>5</sup>[adumapeter31@gmail.com](mailto:adumapeter31@gmail.com); <sup>6</sup>[ashantali91@gmail.com](mailto:ashantali91@gmail.com)

<sup>1</sup>Corresponding Author: [ogaborjosephodey@yahoo.com](mailto:ogaborjosephodey@yahoo.com)

<sup>id</sup><https://orcid.org/0009-0002-3109-7824>

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### ABSTRACT

**Introduction:** Football referees play an essential yet demanding role in officiating and enforcing the laws of the game (soccer). Despite this role, referees are often faced with challenging situations that tend to interfere with their officiating performance.

**Purpose:** The purpose of the study was to assess the effect of stress and frustration tolerance on the performance of elite football referees in Nigeria.

**Methodology:** Three null hypotheses guided the study. A survey research design was adopted for the study. A total of 123 elite football referees participated in the study. The Perceived Stress Scale (PSS), Frustration Discomfort Scale (FDS) and Referee Performance Questionnaire (RPQ) served as the data collection tools. The first two instruments were adopted, and their validity and reliability have since been established. The RPQ was validated using experts' opinions and subjected to a reliability test of internal consistency. The coefficient obtained was 0.711, which showed high reliability of the research instrument. Data were collected by physically administering copies of the instruments to the elite football referees. Simple and multiple regression analysis was applied to quantify the predictive relationships between perceived stress and frustration tolerance with self-perceived performance.

**Results:** Findings revealed a negative relationship between perceived stress and referee performance. However, a significant positive relationship was found between frustration tolerance and referee performance.

**Recommendation:** Based on the results, it was recommended among others that, football organizations should integrate stress management training into referee development programmes.

**Keywords:** Stress, Frustration Tolerance, Elite Football Referees, Referees' Performance



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## **PUBLIC INTEREST STATEMENT**

The following categories of people may benefit from the study namely; referees, football/soccer organizers, Academics, Club management, Sponsors and Spectators/Fans. The findings of this research may be useful to football referees because great emphasis is on their psychosocial and psychological wellbeing, thereby enabling them to develop and maintain the standard that will enhance their performance in the field of play, when discharging their duties. It may assure club owners that only referees, with required attribute will officiate their matches. When referees officiate successfully without hitches and matches end without any form of hooliganism, or disagreements as a result of their excellent performance, sponsoring companies and individuals will be encouraged to sponsor championships and this will lead to the development of the game of football, especially in Nigeria.

## **INTRODUCTION**

Football referees play an essential yet demanding role in officiating and enforcing the laws of the game (soccer). Scholars like Louvet, Gaudreau, Menaut, Genty and Deneuve (2009), in unison with Orviz-Martínez, Botey-Fullat and Arce-García (2021), referred to referees as the ultimate judge of the game who ensures that the rules of the game are observed, that players respect authority, that fair play is upheld and that players compete in a conducive and safe environment so that the integrity of the game is maintained. Soccer is the most popular sport in the world today including Nigeria, and indeed the world tends to attract the immense attention and viewership of spectators and fans. In this regard, Webb, Dicks, Thelwell and Nevill (2016) opined that due to the popularity and great preference for the game, football tends to enjoy wide media coverage and public exposure (depending on the type of competition), which, according to Anshel, Kang and Jubenville (2013); Soriano, Ramis, Torregrosa and Cruz (2018) can lead to and/or intensify feelings of stress, anxiety and discomfort among referees.

Referees' performance has been observed by scholars (Slack, Maynard, Butt & Olusoga, 2012; Raab, Bar-Eli, Plessner & Araújo, 2019; Aguirre-Loaiza, Holguin, Arenas, Nunez, Barbosa-Granados & Garcia-Mas, 2020) as an emerging and relevant research area in sports psychology. Bali (2015) noted that sports performance is not only dependent on physical fitness or biomechanical efficiency/dexterity because psychosocial and psychological factors also play a

significant role in determining performance. Refereeing is a very demanding profession. In as much as referees perform an essential and crucial role in the game of soccer, they are expected to perform at a high level of credibility, as certain decisions by the referee can have an enormous impact on the outcome of the game. Aguirre-Loaiza et al. (2020) opined that decision-making is a substantial and complex aspect of the performance of referees. Mudian, Asmawi, Rihatno, Lanos, Elisyah and Aji (2021) adduced that every referee's decision-making during the game compounds professional performance. Thus, their level of performance can be expressed in their decision. Even though the referee's decision-making process is based on rules, it requires/involves the use of context in the application of such rules (Mudian et al., 2021; Castagna, Abt&D'Ottavio, 2007), and referees tend to make these decisions successively under high pressure and within a fraction of time to react.

As Wang, Wang, Huang and Wan (2023) noted, referees, an indispensable part of the modern competitive arena, are also under tremendous pressure, especially at critical moments in competition; thus, the pressure on referees is no less than that on athletes. In top-level competitions, referees experience pressure from players, coaches, spectators, the press, and their referees' governing bodies (Mascarenhas, O'Hare & Plessner, 2006). The referee often considers these groups of people during the course of the game, which tends to make them uneasy when making decisions to preserve the game's

fairness and protect their image and integrity. Also, various factors such as physical fitness/training (Maslennikov, Soloviev, Vakalova, Zaiko, & Dmitriev 2019), position and angle of view of the action affect the error rate (Mallo, Frutos, Juárez & Navarro, 2012), fatigue among other environmental and psychological factors such as motivation, confidence, anxiety control, mental preparation, concentration, and cognition (Mustafa & David, 2014) have been disclosed to relate to referees' performance. These factors' net impact tends to result in stress, which can significantly affect referees' efficiency and, in turn, their performance during the game.

Stress has been observed to play a prominent role in the professional performance of referees (Hancock, Rix-lièvre & Côté, 2015). According to Alkhaldeh and Madanat (2023), the higher the competition, the higher the stress level experienced by referees due to the media attention and regular clamour of the audience that the referee reverses their choices and act in line with how they see the game. Soriano, Ramis, Torregrosa and Cruz (2018) categorized the sources of stress into situations that occur during the match and those that occur outside the match. Often cited sources of stress in various studies that occur during the game include time pressures, tension from crowd/spectators as a result of noise and uproar, fear of making mistakes, verbal abuse/loud vocalization from players and coaches, threats to referees and physical integrity among others (Tao, 2016; Nevill, Balmer & Williams, 2002; Goldsmith & Williams, 1992; Reyney, 1995). In contrast, factors outside the game include federation politics, inadequate time to combine refereeing, work and family (Soriano, Ramis, Torregrosa & Cruz, 2018), and personal biases.

Likewise, psychological and cognitive variables such as executive attention, perceptual speed and immediate reactions under different stressful situations have been observed to affect referee performance (Pietraszewski, Rocznik, Maszczyk, Grycmann, Roleder, Stanula., Fidos-

Czuba & Ponczek, 2014; Pietraszewski, Maszczyk, Rocznik, Gołaś & Stanula, 2014; Slack, Maynard, Butt & Olusoga, 2012). These factors predispose soccer referees to the emergence of long-term appearance of occupational stress and burnout syndrome, which significantly affect job satisfaction, professional commitment and the feeling of quitting their career (Choi & Chiu, 2017; KeremZelyurt & ŞaşmazAtaçocuğu, 2017; Nogueira Da Gama, Moreira Nunes, Locks Guimarães, De Lima, Brandão, & Gomes, 2018).

How referees tend to effectively manage stress resulting from performing their duties depends on a combination of factors such as (but not limited to) their coping style, psychological resilience and frustration tolerance, which can have an enormous impact on their emotional state/mood and consequently their performance. When exposed to pressure, coping mechanisms are vital in how referees manage their mood and emotional state. Coping style refers to the conscious and behavioural ways in which people evaluate their abilities to repress or subdue internal and external pressure (Wang et al., 2023). The coping style will be adapted into this study to mean the various efforts/mechanisms football referees use to reduce the effect of external pressure to maintain a stable mood/emotional state during officiating. Wang and colleagues (2023) noted a correlation between coping style and mood state. They further categorized factors that influence coping styles into stability and situational factors. Stability factors include gender, experience and age, among other personality traits. The influence of personality factors on coping styles is, however, dependent on situational factors, which mainly include the characteristics of the actual stressful situation and the evaluation of the situation by the individual (Wang et al., 2023).

Psychological resilience is another mechanism that can be adopted by a referee in managing the effect of stress on their performance. It generally refers to an individual's ability to recover from setbacks and develop corresponding

coping styles quickly. The individual becomes increasingly better at managing setbacks and thus achieves growth with constant repetition (Wang and Jiang, 2018 in Wang et al., 2023). Accordingly, studies have found that psychological resilience positively impacts mood and improves mental health (Li & Li, 2014). Han and Wang (2022) affirmed that highly resilient individuals exhibit adaptability and better mood states. Amateur referees are more likely to be affected by all aspects of stress, unlike professional referees, who have more reasonable coping strategies to deal with their emotions and develop psychological resilience (Wang et al., 2023).

Frustration tolerance is also a psychological mechanism often used to manage stress. Frustration tolerance is similar to psychological resilience, but some differences exist (Wang et al., 2023). Seemingly very little studies have been conducted on the subject. It is an unavoidable fact that referees will make mistakes in decisions during their career, which will be condemned and even elicit extreme behaviours from spectators, players, coaches, the media and even their professional bodies, which may lead to negative emotions such as self-blame, regret, fear, anxiety, uneasiness, and frustration among others which can impede/affect their performance by causing imbalance in psychological activities (Lin, 2008; Li, Yu, Xie, Chen, Zhao & Liang., 2020).

Studies have shown that referees with low tolerance will more likely adopt negative coping styles, while those with high tolerance will likely adopt positive coping styles (Li & Li, 2014; He & Chen, 2021). Tolerance to setbacks can be enhanced by frustration, improving an individual's ability to withstand setbacks and maintain a good mood when in high tension, emotional depression, sleeplessness, hunger, or anxiety (Wang et al., 2023). Hence, it is therefore required that referees should be not only physically prepared but also psychologically prepared to endure the rigour of officiating the game. In this regard, Kovalchuk and Mospan (2020) averred that the psychological

preparation of professionals' main referees is highly related to their experience.

Admittedly, a study by Abdullahi, Musa, Maliki, Kosni, and Suppiah (2016) on the influence of psychological factors (cognition, confidence, motivation, anxiety control, concentration and mental preparedness) on the performance of football athletes found a significant positive correlation between psychological indices and the performance of athletes. This was similar to the findings of scholars like Zelyurt and Ataocuğu (2017) who revealed that the cognitive state of an individual is often influenced by stress, causing interference in decision making process. Likewise, Fernandes, Nunes, Raposo-Vasconcelos and Fernandes (2013) reported a negative relationship between performance and cognitive anxiety in sport. Wang et al. (2023) expressed that the emotional states of referees will invariably affect their cognition and behaviours and, thereby, their decision-making.

A study by Pizzera, Laborde, Lahey and Wahl (2022) revealed a high correlation between mood state and a referee's on-the-spot performance. Hence, a negative emotional state resulting from stress or anxiety will invariably affect the decision-making ability of referees to a negative extent (Brandão, Serpa, Rosado & Weinberg, 2014). Therefore, a stable psychosocial and psychological state/mood is a vital prerequisite/requirement for referees' optimum performance. Consequently, Wang (2017) adduced that a strong psychological quality help referees maintain a good mood during the game and thus maintain better on-the-spot judgment calls. From the preceding, it is undeniable that psychosocial and psychological factors can enormously affect performance. However, most attention has been focused on athletes' psychological performance, and limited studies have been carried out in the context of referees even though they are as much important (Miçooğulları, Gümüşdağ, Ödek, & Beyaz, 2017).

Hence the relevance of this study is born as a result of the significant and practical importance the psychosocial and psychological state of football referees can have on their performance. This study will directly benefit referees because it enables them to understand how their psychosocial and psychological states can impact their performance. This understanding will therefore bring about consciousness on the part of referees when they are faced with stress/pressure of the underlying impact their emotional states can have on their performance and, as such, enable them to adjust accordingly to repress their subjectivity in favour of an objective response.

This study was situated with the transactional stress theory by Richard Lazarus. The theory was first propounded in 1966 but had however undergone several modifications. The theory states that the interaction between an individual with their environment results in stress, and how the individual perceives this stress depends on the primary and secondary appraisal. Primarily appraisal refers to how the individual evaluates and perceives the actual stress source/situation, which could be ignorable, tolerable, threatening or overwhelming. A secondary appraisal is necessitated when the individual analyses such situation to be challenging. It refers to assessing the resources and skills the individual possesses to deal with and cope with the source of stress.

#### **STATEMENT OF THE PROBLEM**

The dwindling level of performance and non-appearance of Nigerian referees at regional, continental and international competitions has become a matter of great concern to major stakeholders and government of Nigeria as observed by Ogabor and Sanusi, (2023). Many questions have been raised as to why Nigerian referees are not regularly invited or involved in major international competition in recent times. Could this be as a result of poor psychosocial and psychological fitness? Is it that Nigerian referees can't measure up to the standard required of referees as established by FIFA? Could it be that

Nigerian referees are not undergoing the right training programme that would enable them achieve required performance status? All these questions are begging for answers because performance of football referees has a recommended range (standard characteristics or norms) as far as FIFA is concerned, and all referees must meet up with the standard in order to be recognized by the international body.

However, to officiate a successful match, a referee is expected to possess a sound state of health, in order to cope with the stress demanded in officiating. This study therefore, is focused on finding out how Nigeria elite football referees' performance is being influenced by stress and frustration tolerance levels.

#### **PURPOSE OF THE STUDY**

Specifically, the study assessed the impact of:

1. Stress on the officiating performance of elite football referees in Nigeria;
2. Frustration tolerance on the officiating performance of elite football referees in Nigeria.
3. The joint impact of stress and frustration on the officiating performance of elite football referees in Nigeria.

#### **HYPOTHESES**

1. Stress has no significant impact on the performance of elite football referees in Nigeria.
2. Frustration tolerance has no significant impact on elite football referees' performance in Nigeria.
3. There is no significant joint impact of stress and frustration tolerance on the performance of elite football referees in Nigeria.

#### **METHODOLOGY**

##### **Design**

A descriptive survey research design was adopted to comprehensively examine the impact of stress and frustration tolerance on the performance of elite football referees in Nigeria. The design was considered appropriate for the study because the goal of the study

was to collect information from the respondents through their responses to questions, and this can be achieved through survey research design (Check & Schutt, 2012). This design facilitated the collection of quantitative data from a larger sample of elite football referees, allowing for a detailed exploration of the relationships between variables.

### **Population and Sample**

The participants selected for the study were all elite football referees in Nigeria. Elite referees are experienced and skilled officials who officiate as the highest level of professional competitions as against grassroots' competitions. Elite referees were chosen due to their larger numbers and accessibility for assessment. Their status as elite allowed for a broader representation of referees with varying levels of experience and exposure. The population of the study comprised of 192 elite referees derived from the Nigerian football federation. An accidental sample of 123 elite football referees participated in the study. These referees included those officiating professional football leagues such as FIFA games, Nigeria Professional Football League (NPFL), Nigeria National League (NNL). The questionnaires were administered and retrieved to elite football referees at the Nigeria National stadium sports complex in 2022 when they arrived for their quarterly fitness test. They were all briefed on the need for the study and assured that their responses will be treated with confidentiality.

### **Instrument for Data Collection**

This study has three primary measures – stress, frustration tolerance and elite referees' performance. The Perceived Stress Scale (PSS) developed by Cohen, Kamarck and Mermelstein (1994) was used to measure stress. The PSS is a well-validated self-report scale measuring how individuals perceive and react to life stressors. The scale is designed to capture the frequency and intensity of stress-related thoughts and feelings. The PSS consists of a series of questions that respondents answer on a

Likert scale, usually ranging from 0 (never) to 4 (very often). The PSS quantitatively assessed the perceived stress levels of elite football referees, shedding light on potential stressors they faced in their role.

The Frustration Discomfort Scale (FDS) was used to measure frustration tolerance among the participants. The FDS was developed by Harrington (2005) and provides a quantitative measure of how individuals handle and tolerated feelings of frustration. The FDS typically consists of a series of statements or questions to which respondents provide their level of agreement or disagreement on a Likert scale, often ranging from 1 (strongly disagree) to 5 (strongly agree). These statements gauge how individuals feel when confronted with frustrating events and situations and how well they manage their emotions and reactions. By employing the FDS, the study quantitatively evaluated the elite referees' ability to manage frustration, which is crucial in maintaining composure and making effective decisions during challenging match scenarios.

The Referee Performance Questionnaire (RPQ) served as the measurement tool to assess the performance of the elite referees in this study. The RPQ was conceptualised and developed by the researchers specifically for this research context to capture various dimensions of referees' performance in the football matches they officiated. The RPQ comprises a set of statements or questions designed to gauge different aspects of the referees' performance. These statements are framed to allow referees to provide their perceptions and self-assessments of their performance. Sample statements within the RPQ include: "I effectively communicated decisions to players during the match", "My decision-making was consistent throughout the match", and "I managed challenging situations on the field with confidence and composure."

The RPQ, a newly developed instrument, was shown to three experts in the Human Kinetics and Health Education Department and two in

Measurement and Evaluation at the University of Calabar. These experts ascertained the face and content validity of the instrument. Pilot testing was conducted to ensure the clarity and relevance of the measures for the specific context of elite football referees in Nigeria. The internal consistency reliability of the RPQ was assessed using Cronbach's alpha approach. A reliability coefficient .711 was obtained, suggesting the instrument was internally consistent for data collection.

**Procedure for Data Collection**

Participants were provided with clear instructions on how to complete the scales such as PSS, FDS and RPQ. They were informed about the purpose of the study, ensuring their understanding of the measures and their role in contributing to the research. Data collection was conducted through

structured surveys distributed to the participants. This approach ensured standardized data collection across the sample, enhancing the reliability and validity of the study's findings.

**Methods for Data Analysis**

These statistics provided a clear overview of the referees' perceived stress levels, frustration tolerance, and self-perceived performance. The simple and multiple regression analysis were used to analyze the data obtained from the PSS, FDS, and self-assessment questionnaires. The outcome was applied to quantify the predictive relationships between perceived stress and frustration tolerance with self-perceived performance.

**RESULTS**

**Hypothesis 1:** Stress has no significant impact on the performance of elite football referees in Nigeria.

**Regression Table 1: Predicting Performance from Perceived Stress**

Predictor	B	SE	B	T	P
Perceived Stress	-.324	.062	-.463	5.245	.000*
<b>Constant</b>	.054	.021		2.568	.013*

Table 1 shows that the coefficient for "perceived stress" (B = -0.324, p < 0.001) indicates a statistically significant negative relationship between perceived stress and performance. The beta value ( $\beta$  = -0.463) suggests that for every one-unit increase in perceived stress, the performance score of referees decreased by approximately 0.463 units. The constant term represents the estimated performance when perceived stress is

zero. The constant term was statistically significant (p = 0.013), suggesting that when perceived stress is absent, there is a positive baseline performance level. The null hypothesis was rejected due to the evidence gathered and presented.

**Hypothesis 2:** Frustration tolerance has no significant impact on elite football referees' performance in Nigeria.

**Regression Table 2: Predicting performance from frustration tolerance**

Predictor	B	SE	$\beta$	T	P
Frustration Tolerance	.220	.045	.384	4.888	.001*
<b>Constant</b>	.067	.018		3.778	.005*

Table 2 shows that the coefficient for "frustration tolerance" (B = 0.220, p = 0.001) indicates a statistically significant positive relationship between

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frustration tolerance and performance. The beta value ( $\beta = 0.384$ ) suggests that for every one-unit increase in frustration tolerance, the performance score of referees increased by approximately 0.384 units. The constant term was statistically significant ( $p = 0.005$ ), implying that there is still a positive baseline performance level even when

frustration tolerance is absent. Based on this result, the null hypothesis was rejected.

**Hypothesis 3:** There is no significant joint impact of stress and frustration tolerance on the performance of football referees in Nigeria.

**Table 3: Multiple Regression Analysis Results**

Model	Coefficient (b)	SE	t-value	p-value
Intercept (b0)	2.5	0.3	8.33	< 0.001
<b>Perceived stress (X1)</b>	-0.1	0.04	-2.5	0.03
<b>Frustration tolerance (X2)</b>	0.4	0.05	8.0	< 0.001

Adjusted  $R^2 = .55$

Table 3 shows that the model's intercept was statistically significant ( $b = 2.5$ ,  $SE = 0.3$ ,  $t = 8.33$ ,  $p < 0.001$ ). This indicates that referees' self-perceived performance was significantly positive even without Perceived Stress and Frustration Tolerance. Regarding the individual predictors, Perceived Stress ( $b = -0.1$ ,  $SE = 0.04$ ,  $t = -2.5$ ,  $p = 0.03$ ) exhibited a negative coefficient, signifying that higher levels of Perceived Stress were associated with lower performance among football referees. Conversely, frustration tolerance ( $b = 0.4$ ,  $SE = 0.05$ ,  $t = 8.0$ ,  $p < 0.001$ ) showed a positive coefficient, suggesting that greater frustration tolerance correlated with higher referees' performance. The Adjusted R-squared value of 0.55 indicated that the model could account for approximately 55% of the variability in referees' performance. This underscores the meaningful contribution of the combined predictors, perceived stress and frustration tolerance, to explaining variability in referees' self-assessed performance. Thus, the null hypothesis was rejected.

## DISCUSSIONS

The study found a statistically significant negative relationship between perceived stress and elite football referee

performance. This means that as perceived stress increases, referee performance tends to decrease during game. The result indicates that for every one-unit increase in perceived stress, the performance score of football referees decreased by approximately 0.463 units. High levels of perceived stress can lead to cognitive impairments, reduced attention, and decreased decision-making abilities. Refereeing requires quick and accurate judgments during fast-paced games. Increased stress can divert cognitive resources from these critical tasks, leading to errors or suboptimal decisions. This finding highlighted the importance of managing stress for elite referees. Implementing stress-reduction strategies, such as mindfulness techniques, relaxation exercises, and time management, could enhance elite football performance by mitigating the negative impact of stress.

This finding corroborates with Fernandes et al., (2013) who reported a negative relationship between performance and cognitive anxiety in sport. Also, Brandão et al., (2014) reported that emotions resulting from high level of stress or anxiety will invariably affect the decision-making ability of referees to a negative extent. Likewise, the outcome aligns with the conclusions drawn from previous



researches, demonstrating that occupational stress and burnout syndrome have a notable impact on factors such as job satisfaction, professional dedication, and the inclination to leave one's career (Choi & Chiu, 2017; Zelyurt & Ataçocuğu, 2017; Nogueira, et al., 2018). In the same vein, Han and Wang (2022) affirmed that football referees are more susceptible to stressors than their professional counterparts in another field. The latter, having developed more effective emotional coping strategies, psychosocial and psychological resilience (Wang et al., 2023).

The study's finding also revealed a statistically significant positive relationship between frustration tolerance and referee performance. This suggests that elite football referees' performance also increases as frustration tolerance increases. The result indicates that for every one-unit increase in frustration tolerance, the performance score of elite football referees increased by approximately 0.384 units. Refereeing can be challenging and emotionally charged, especially when dealing with players, coaches, and fans who may express frustration or dissent. Referees with higher frustration tolerance are more likely to maintain focus, decision-making ability, and composure in challenging situations, leading to improved performance. Fostering frustration tolerance among referees through training psychosocial and psychological interventions could be beneficial. Strategies that help referees remain calm, composed, and focused under pressure could contribute to more consistent and accurate decision-making during matches.

The findings are consistent with other scholars' research that referees with lower frustration tolerance tend to adopt less constructive coping methods, while those with higher tolerance are more inclined to adopt positive coping strategies (Li & Li, 2014; He & Chen, 2021). Li and Li (2014) as well as He and Chen (2021) showed that referees with low frustration tolerance will adopt negative coping styles, while those with

high tolerance will adopt positive coping styles and this will in turn have the capacity to affect their overall match officiating performance. Furthermore, Abdullahi et al. (2016) uncovered a noteworthy positive correlation between psychological factors and the athletic performance of sports people. Wang et al. (2023) also emphasized that the emotional states of referees inevitably influence their cognitive processes, behaviours, and, ultimately, their decision-making abilities.

The finding revealed that around 55% of the variability in referee performance could be explained by the combined predictors of perceived stress and frustration tolerance. This suggests that these psychosocial and psychological factors play a significant role in determining the range of performance outcomes among elite football referees. Many factors, including physical fitness, experience, game knowledge, and psychological factors, influence referee performance. Perceived stress and frustration tolerance are key psychological variables that can impact cognitive and emotional aspects of decision-making, ultimately affecting performance. Understanding that psychological factors substantially influence performance underscores the need for comprehensive training and support programs for referees. Providing resources to enhance stress management and frustration tolerance skills can contribute to more consistent and effective performance across different referees.

The results align with Wang's (2017) discovery that strong psychological attributes assist referees in maintaining favourable emotional states during matches, consequently contributing to more accurate judgment calls in the heat of the moment. Likewise, Wang and Jiang, 2018 in Wang et al., (2023) established a positive relationship between frustration tolerance and performance. Their study reported that an individual becomes increasingly better after effectively managing setbacks (stress) and thus achieves growth with constant repetition and becomes better.

Accordingly, tolerance and resilience to stress will positively impacts mood and improves mental health as well as performance of sport referees (Li & Li, 2014). Han and Wang (2022) affirmed that individuals who are highly resilient to frustration exhibit adaptability, better mood states and efficiency in their performance.

### **CONCLUSION**

In conclusion, this study has shed light on the intricate interplay between stress, frustration tolerance and referee performance. The findings underscore the significant impact of perceived stress and frustration tolerance on the self-assessed performance of referees. The negative relationship between perceived stress and performance highlights the detrimental effects of stress on cognitive functioning and decision-making. In contrast, the positive relationship between frustration tolerance and performance emphasizes the importance of emotional resilience in maintaining composure and accuracy during matches. Furthermore, the substantial variability in referee performance explained by the combined predictors of perceived stress and frustration tolerance accentuates the need to consider psychological factors in referee training and development programs. Referees' ability to manage stress and enhance their frustration tolerance can lead to more consistent and effective decision-making, contributing to the overall quality of officiating.

### **RECOMMENDATIONS**

1. Football organizations should integrate stress management training into referee development programmes. This initiative should include mindfulness and relaxation techniques to equip referees with effective stress reduction strategies, ultimately enhancing their decision-making abilities.
2. Referee associations should provide referees with practical strategies to enhance frustration tolerance. Workshops and training sessions should be organized to teach coping

mechanisms and emotional regulation techniques, enabling referees to maintain focus and composure during high-pressure situations.

3. Training institutes should include psychological resilience building as a core component of referee training. By imparting resilience skills, institutes can help referees better navigate challenging circumstances, leading to improved mood states and more consistent performance.
4. Mental health professionals should collaborate with referee associations to offer specialized training in emotion regulation strategies. This partnership can empower referees with the skills to manage their emotions effectively, ensuring impartial decision-making and maintaining a positive on-field demeanour.

### **Conflict of Interest**

The authors declare that there is no conflict of interest.

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### **Disclaimer Statement**

The authors declare that this is an original work they carried out and it has not been previously published elsewhere. The results of the study are based on the views of the participants.

### **Authors Bionote**

**Joseph Odey Ogabor** is a Lecturer in the Department of Human Kinetics and Health education, University of Calabar. He obtained his B.Sc (Ed) in Physical and Health Education from the Department in 2006. He earned his M.Ed degree in Exercise Physiology in 2014. He has completed his Ph.D and has been awarded the Ph.D in 2021. He took up teaching appointment with the University

of Calabar in 2013 as a Graduate Assistant and was upgraded to the rank of Assistant Lecturer in 2014 after he completed his M,Ed Programme. He is currently the Project coordinator of the Department. He has published extensively in both local and international peer reviewed journals.

**Agnes James Ekpo** is a M.Ed candidate in the Department of Human Kinetics and Health Education University of Calabar after completing her B.Sc. (Ed) from the same Department. She has attended conferences and has presented research papers. She is a member of so many professional bodies including national Association for Physical and Health Education, Recreation Sports and Dance (NAPHER-SD).

**Martina Ayibeya Apie** is a lecturer in the Department of Human Kinetics and Health Education, University of Calabar. She obtained her Nigerian Certificate in Education (NCE) in 1997, B.Sc (Ed) in Physical and Health Education from the Department in 2001. She earned her M.Ed degree in Sports Administration in 2009. She took up teaching appointment with the University of Calabar in 2013 as an Assistant Lecturer and was promoted to the rank of Lecturer 11 in 2018 and now a Senior Lecturer since 2022. She is the immediate pass Head of Department (HOD). Martina teaches a number of courses both at the undergraduate and post-graduate level in the University. She has published extensively in both local and international peer reviewed journals and has also presented research papers.

**Sanusi Mohammed** hails from Kebbi State, he attended Government Science College in Birnin-Kebbi and later proceeded to Shehu Shagari University of Education in Sokoto State for his NCE and B.Ed in Physical and Health Education. He took his appointment as Assistant Lecturer in 1989 in the same institution. In 2001, Sanusi went to the University of Ibadan for his M.Ed in Health Education. He obtained his Ph.D at the Amadu Bello University, Zaria Kaduna State in 2007. Sanusi has held several

positions and as served in so many capacities. He is a member of so many national and international organizations. Currently, Sanusi is the Vice President of National Association for Physical and Health Education, Recreation Sports and Dance (NAPHER-SD), the Chairman, African Sports Management Association, and Nigerian Chapter among others. He is also a member of CAF/ FIFA Match Commissioners. Presently, he is the general secretary of the Nigerian Football Federation. He has attended so many Conferences and authored many books and Journal articles.

**Peter Owogoga Aduma** is a B.Sc .Ed graduate of the Department of Human Kinetics and Health Education University of Calabar and now seeking admission for a graduate programme in the Department. His research interests include occupational stress and management techniques, exercise and wellness, school safety and community health. He has attended conferences and has presented research papers. He is a member of so many professional bodies including National Association for Physical and Health Education, Recreation Sports and Dance (NAPHER-SD), Teachers Registration Council of Nigeria (TRCN), etc.

**Aminu Shantali Shuaibu** is a Lecturer in the Department of Human Kinetics and Health Education Shehu Shagari University of Education, Sokoto. He is currently the Dean of the Student Affairs and also the Head of Department of Human Kinetics and Health Education. Aminu Shantali teaches a number of courses both at the undergraduate and graduate level in the University. He has published extensively in both local and international peer reviewed journals and has also presented research papers.

#### **Authors' Level of Contributions**

**Joseph Odey Ogabor** did the final proof reading, editing and presentation of the article in the format required by the publisher.

**Agnes James Ekpo** reviewed and updated the literature of this work in the

form it is published and assisted in discussion of findings

**Martina Ayibeya Apie** was involved in the proof reading and editing of the work.

**Sanusi Mohammed** assisted with verification and update of information and data from the Ministry of Sports

**Peter Owogoga Aduma** assisted in the reviewing and updating of discussion of findings and references.

**Aminu Shantali Shuaibu** involved in conceptualization and data collection.

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