

IMPACTS OF SPOTLIGHT EFFECT ON PERFORMANCE ANXIETY AND SELF-CONFIDENCE AMONG UNDERGRADUATE ATHLETES OF THE UNIVERSITY OF PORT HARCOURT

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Abstract: This study investigated the impacts of the spotlight effect on performance anxiety and self-confidence among undergraduate athletes at the University of Port Harcourt. The spotlight effect refers to the tendency of individuals to overestimate the extent to which they are the focus of others' attention, which can lead to heightened anxiety and diminished confidence, especially in competitive sports environments. The research employed a quantitative approach, using a structured questionnaire divided into four sections: demographic information, performance anxiety, self-confidence, and coping strategies. The sample size consisted of 60 undergraduate athletes, both male and female, representing various sports disciplines. Data were analyzed using descriptive statistics, independent t-tests, and one-way ANOVA to assess differences based on gender and sport type (team vs. individual). The findings revealed a significant relationship between the spotlight effect and increased performance anxiety, with male athletes experiencing higher levels of anxiety compared to females. Additionally, athletes participating in individual sports reported lower self-confidence under the spotlight effect than those involved in team sports. The analysis of coping strategies highlighted that athletes employ various techniques, including relaxation exercises, mental visualization, and peer support, to mitigate the negative impacts of the spotlight effect. The study concludes that the spotlight effect significantly influences athletes' psychological states, affecting their anxiety levels and self-confidence, with notable differences across gender and sport type. It recommends targeted mental training programs, gender-specific support, and simulation of high-pressure environments to help athletes manage the pressures of being observed during competition. These interventions could contribute to improving overall athletic performance and well-being.

Keywords: Spotlight effect; Performance anxiety; Self-confidence; Undergraduate athletes; University of Port Harcourt; Sport type; Gender differences; Coping strategies

1 INTRODUCTION

The psychological concept known as the spotlight effect refers to an individual's tendency to overestimate the extent to which their actions and appearance are observed and scrutinized by others. This phenomenon stems from a cognitive bias that humans naturally focus more on themselves than others do, leading to a misperception of how much attention they receive from others [1]. In social settings, people often assume they are being watched more than they really are, which can lead to heightened self-consciousness. In performance-based contexts like sports, athletes may believe their mistakes, behavior, or appearance are being heavily judged by spectators, teammates, or coaches. This perception can increase anxiety and stress, particularly in high-pressure situations such as competitions or key events [2].

In sports, the spotlight effect is particularly relevant due to the public and competitive nature of athletic performance. Athletes often feel as though they are under constant observation, whether during training, games, or everyday interactions with their teams. The presence of spectators, media coverage, and the importance placed on performance outcomes can amplify the feeling of being in the spotlight [3]. For undergraduate athletes, this sensation may be heightened by the pressure to prove their skills, live up to expectations, and secure future opportunities in sports or education. Consequently, the spotlight effect plays a crucial role in shaping both their mental state and physical performance.

Understanding the spotlight effect is significant because it directly impacts two key psychological factors in sports: performance anxiety and self-confidence. Performance anxiety refers to the stress or nervousness that athletes feel when they are about to perform in a high-stakes environment. It can lead to physical symptoms such as sweating, trembling, or an increased heart rate, as well as mental effects like fear of failure or difficulty concentrating [4]. When athletes believe that all eyes are on them, as suggested by the spotlight effect, their performance anxiety can become more intense, often hindering their ability to execute skills properly during competition.

On the other hand, self-confidence in sports refers to an athlete's belief in their ability to perform well. High levels of self-confidence have been linked to better performance outcomes, as athletes with confidence tend to take more risks, recover quickly from mistakes, and remain focused under pressure [5]. However, the spotlight effect can erode this confidence by making athletes overly concerned with how they are perceived, leading to self-doubt and second-guessing. When athletes

perceive themselves as constantly being judged, their self-confidence may waver, resulting in hesitancy or fear during key moments in competition [6].

The importance of understanding the spotlight effect within the context of sports lies in its potential to either enhance or hinder an athlete's performance. If coaches, trainers, and athletes themselves can recognize the presence of the spotlight effect and its influence on anxiety and self-confidence, they can take steps to mitigate its negative effects. Psychological strategies such as mindfulness, positive self-talk and reframing techniques can help athletes shift their focus away from perceived external judgments and concentrate on their performance [7]. This can lead to reduced anxiety and a boost in self-confidence, ultimately improving overall performance outcomes.

For undergraduate athletes, who are often in a developmental phase of both their academic and athletic careers, managing the spotlight effect is crucial. These athletes may already face various pressures, such as maintaining academic performance, meeting team expectations, and navigating their social environments. The additional psychological burden of the spotlight effect can exacerbate existing stressors, making it harder for them to perform at their best [8]. Understanding this phenomenon could be key to enhancing their mental resilience and long-term success both on and off the field.

In the context of university sports, particularly in institutions like the University of Port Harcourt, recognizing and addressing the spotlight effect could be a game-changer for athlete development. University athletes often deal with local fame, media attention, and the expectations of their peers, which can amplify feelings of being constantly observed [9]. By integrating awareness of the spotlight effect into athletic programs, universities could help athletes develop stronger mental tools for managing performance anxiety and boosting self-confidence, leading to better overall results in competitions.

Given the competitive nature of modern sports, particularly at the university level, the ability to handle pressure and maintain confidence is essential for success. Athletes who can manage the spotlight effect are more likely to remain composed during high-pressure situations and perform at their peak. Understanding this phenomenon not only benefits individual athletes but can also enhance team dynamics, as athletes with higher self-confidence and lower anxiety are often better leaders and collaborators on the field [10].

1.1 Research Questions

1. What is the relationship between the spotlight effect and performance anxiety among undergraduate athletes of the University of Port Harcourt?
2. How does the spotlight effect influence the self-confidence levels of undergraduate athletes of the University of Port Harcourt during competitive sports events?
3. What are the gender differences, in the experience of the spotlight effect among undergraduate athletes of the University of Port Harcourt?
4. What coping strategies do undergraduate athletes of the University of Port Harcourt employ to manage the negative impacts of the spotlight effect on their sports performance?

1.2 Hypothesis

1. There is no significant difference in the experience of the spotlight effect between undergraduate athletes participating in team sports and those participating in individual sports at the University of Port Harcourt.
2. There is no significant difference in the experience of the spotlight effect between male and female undergraduate athletes at the University of Port Harcourt.

2 LITERATURE REVIEW

2.1 The Spotlight Effect and Its Cognitive Foundations

The spotlight effect was first formally studied by Gilovich, Medvec, and Savitsky [11], who demonstrated that individuals tend to overestimate how much they are noticed by others in social situations. Their research revealed that this effect is rooted in egocentric thought processes—people focus on themselves and thus mistakenly assume that others are equally focused on them. This has implications for athletes who feel that all eyes are on them during performance, leading to higher stress levels [11]. In the sports context, this cognitive bias becomes particularly relevant. Greenlees, Eynon, and Thelwell [2] examined how athletes perceive themselves during public performances and concluded that the spotlight effect is often more pronounced in situations with large audiences, media attention, or high stakes. Athletes frequently overestimate the amount of scrutiny from spectators and coaches, which heightens their self-consciousness and anxiety.

2.2 Performance Anxiety in Athletes

Performance anxiety is a well-studied concept in sports psychology, often linked with pre-performance jitters and nervousness. The spotlight effect exacerbates this anxiety, as athletes feel they are being watched and judged, leading to an increase in physical symptoms such as elevated heart rate, sweating, and muscle tension. Turner and Jones [4] discussed

how the presence of perceived evaluators amplifies performance anxiety, particularly in individual sports where the athlete's focus is more self-directed. The authors noted that anxiety often results in a "choking" phenomenon, where athletes underperform under pressure due to heightened arousal levels. Further, Grossbard et al. [12] found that athletes with a heightened sense of self-awareness due to the spotlight effect tend to experience concentration disruption and worry, both of which negatively impact performance. They concluded that strategies aimed at reducing the spotlight effect, such as reframing thoughts or engaging in mindfulness, could significantly reduce performance anxiety.

2.3 The Role of Self-Confidence in Athletic Performance

Self-confidence, defined as the belief in one's ability to perform well, plays a pivotal role in athletic success. High self-confidence has been consistently linked to better performance outcomes, risk-taking, and perseverance. Machida, Ward, and Vealey [5] found that athletes with higher self-confidence tend to perform better because they are less likely to be affected by mistakes and external judgments. However, the spotlight effect can diminish self-confidence by making athletes overly concerned with how others perceive their performance, leading to self-doubt and hesitation. Baumeister [13] described the phenomenon of "choking under pressure" as a common occurrence when self-confidence is undermined by the perception of being scrutinized. When athletes focus more on how they are being viewed than on their actual performance, they tend to second-guess themselves, which negatively affects their execution of skills. This is consistent with the findings of Hanton, Mellalieu, and Hall [14], who identified that athletes who experience higher levels of self-confidence tend to be more resilient under pressure, showing that mitigating the spotlight effect could help preserve athletes' confidence.

2.4 Gender and the Spotlight Effect

Research suggests that gender differences may exist in the way the spotlight effect influences performance anxiety and self-confidence. Nicholls et al. [15] found that female athletes were more prone to experiencing self-consciousness and social anxiety in competitive settings compared to their male counterparts. This difference may be attributed to societal pressures on female athletes to conform to certain standards of appearance and behavior, which intensifies the feeling of being in the spotlight. The study highlighted the need for gender-specific strategies in managing the spotlight effect, particularly in team sports where group dynamics may play a significant role in performance perception.

2.5 The Role of Experience and Expertise

The impact of the spotlight effect also varies depending on an athlete's level of experience. Myers, Hill, and Worsfold [9] examined university-level athletes and found that novices were more affected by the spotlight effect than experienced athletes. Novice athletes often lacked the coping mechanisms needed to deal with the pressure of public scrutiny, leading to increased performance anxiety and reduced self-confidence. On the other hand, experienced athletes were better equipped to manage the pressures of being observed, often using mental resilience strategies developed over years of competition. In addition, Lazarus, Porat, and Stephan [8] found that athletes who had been exposed to regular high-pressure environments, such as elite competitions, developed an ability to perform under the spotlight. Their study emphasized the importance of incorporating psychological training that addresses the spotlight effect in athletic programs to build mental resilience in younger athletes.

2.6 Coping Strategies for the Spotlight Effect

Several coping mechanisms have been proposed to help athletes manage the spotlight effect and its associated anxiety. Brown and Fletcher [7] explored the use of mindfulness-based interventions in reducing performance anxiety caused by the spotlight effect. Their study demonstrated that athletes who practiced mindfulness were able to shift their focus away from external judgments and concentrate more on their performance. Other strategies, such as cognitive restructuring and positive self-talk, have been shown to improve self-confidence by reframing negative perceptions [1]. Similarly, Pineda-Espejel et al. [16] advocated for the use of psychological skills training, including visualization and goal-setting, to mitigate the effects of the spotlight effect. These interventions allow athletes to mentally prepare for high-pressure situations by simulating the feeling of being watched, thus desensitizing them to the pressures of public performance.

2.7 Team vs. Individual Sports

Research indicates that the spotlight effect may manifest differently in team sports compared to individual sports. O'Connor and Arnold [17] suggested that in team sports, the attention is often distributed among players, which can alleviate the individual sense of being in the spotlight. However, this effect can also depend on an athlete's role within the team. Star players or those in key positions may still experience heightened self-consciousness due to the centrality of their roles. In contrast, athletes in individual sports, such as track and field or tennis, may feel a more direct and intense form of the spotlight effect, as the focus is entirely on them.

3 MATERIALS AND METHODS

This study adopted a descriptive survey design to explore the impact of the spotlight effect on performance anxiety and self-confidence among undergraduate athletes at the University of Port Harcourt. A survey design was chosen to capture participants' self-reported perceptions and experiences related to the spotlight effect in real-life sports scenarios. This design allowed for the collection of quantitative data, which was used to identify patterns and relationships between the spotlight effect, performance anxiety, and self-confidence. The population for this study comprised 144 undergraduate athletes enrolled in the University of Port Harcourt, specifically those actively participating in sports competitions at the university level. These athletes came from various sports disciplines, including team sports (football and basketball) and individual sports (athletics and tennis). The estimated population size was 144 athletes. This population was targeted because of their regular involvement in competitive sports, which often puts them under scrutiny, making them more likely to experience the spotlight effect.

A stratified random sampling technique was employed to select participants for the study. The stratification was based on the type of sport (team sports vs. individual sports) and gender (male vs. female athletes). This ensured that a representative sample of athletes from different sports and genders was included in the study. From the population of 144 athletes, a sample size of 60 athletes was determined using Cochran's formula for determining sample size in large populations. The sample was proportionally divided, with 45 athletes representing team sports and 15 representing individual sports. The primary instrument for data collection was a self-structured questionnaire. The questionnaire was designed in Likert scale format, with responses ranging from 1 (Strongly Disagree) to 4 (Strongly Agree), to quantify the athletes' levels of anxiety, self-confidence, and spotlight effect perception.

To ensure the validity of the instrument, the questionnaire was subjected to expert review by three professionals in sports and exercise science. Their feedback was incorporated to refine the clarity, relevance, and appropriateness of the items. Additionally, a pilot study was conducted with 20 athletes (not part of the main study) to test the reliability of the instrument. The internal consistency of the questionnaire was measured using Cronbach's alpha with a value of 0.85 indicating good reliability. Data collection was conducted over a two-week period. The researcher distributed the questionnaires to athletes before or after their training sessions to minimize disruption. Participants were briefed on the purpose of the study and assured of the confidentiality of their responses. The athletes were given approximately 20 minutes to complete the questionnaire. A total of 60 completed questionnaires were collected and used for analysis.

The collected data were analyzed using descriptive statistics of means and standard deviations while inferential statistics of t-test and one-way ANOVA were used to test hypotheses. All analyses were performed using SPSS version 25, and the significance level was set at $p < 0.05$ for all statistical tests. The findings were presented in tables for clarity. Informed consent was obtained from all participants prior to their involvement in the study. Participants were assured that their responses would remain confidential and anonymous. They were also informed that their participation was voluntary and that they could withdraw from the study at any time without any consequences.

4 RESULTS

Table 1 Mean and Standard Deviation Summary of the Relationship between the Spotlight Effect and Performance Anxiety among Undergraduate Athletes of the University of Port Harcourt

S/NO	ITEMS	SA (4)	A (3)	D (2)	SD (1)	TWS (Total Weighted Score)	X (Mean)	Standard Deviation	Remark
1	I feel more anxious when I think that everyone is watching me during competitions.	20	25	10	5	115	1.92	0.78	Moderate Anxiety
2	My anxiety levels increase when I feel like I am the center of attention in a competition.	25	20	10	5	120	2.00	0.76	Moderate Anxiety
3	Knowing that others are judging me makes me more nervous before a competition.	30	15	10	5	135	2.25	0.71	Moderate Anxiety
4	The fear of being observed closely impacts my ability to focus during sports events.	18	25	12	5	111	1.85	0.82	Moderate Anxiety
5	My performance anxiety is heightened when I believe people expect me to perform perfectly.	22	25	8	5	124	2.07	0.77	Moderate Anxiety
	Grand mean								

The table 1 above illustrates the responses of undergraduate athletes at the University of Port Harcourt regarding the relationship between the spotlight effect and performance anxiety. Overall, a moderate level of performance anxiety is observed across the five statements, with mean scores ranging from 1.85 to 2.25, indicating that athletes generally experience heightened anxiety when they feel observed during competitions. The standard deviations suggest a relatively consistent response pattern among participants, though slight variations exist. The highest average score (2.25) corresponds

to the anxiety related to being judged by others, indicating that the pressure of external evaluations significantly impacts their mental state. This analysis highlights the critical role of perceived observation in influencing athletes' anxiety levels, suggesting a need for effective coping strategies to manage performance anxiety in competitive settings.

Table 2 Mean and Standard Deviation Summary of how Spotlight Effect Influence the Self-Confidence Levels of Undergraduate Athletes of the University of Port Harcourt during Competitive Sports Event

S/NO	ITEMS	SA (4)	A (3)	D (2)	SD (1)	TWS (Total Weighted Score)	X (Mean)	Standard Deviation	Remark
1	The feeling of being observed makes me doubt my abilities during competitions.	25	20	10	5	120	2.00	0.85	Moderate Impact
2	When I think others are watching me, my self-confidence decreases.	22	25	8	5	125	2.08	0.79	Moderate Impact
3	I find it hard to maintain confidence when I believe the spotlight is on me during a game.	20	20	15	5	115	1.92	0.82	Moderate Impact
4	My self-assurance is weakened when I feel like everyone is scrutinizing my performance.	30	15	10	5	135	2.25	0.71	Moderate Impact
5	Despite being watched by others, I remain confident in my abilities.	15	20	15	10	105	1.75	0.90	Moderate Impact
	Grand Mean						2.00		

The data presented in the table 2 demonstrates the influence of the spotlight effect on self-confidence among undergraduate athletes at the University of Port Harcourt. The mean scores range from 1.75 to 2.25, indicating a generally moderate impact of being observed on self-confidence during competitions. The highest mean score (2.25) reflects the belief that scrutiny negatively affects self-assurance, while the lowest mean score (1.75) indicates that some athletes still maintain confidence despite being watched. The standard deviations suggest a consistent response pattern among participants, highlighting the pervasive nature of performance anxiety in competitive settings. Overall, the findings emphasize the importance of addressing self-confidence issues among athletes, particularly in high-pressure environments where they feel observed, suggesting a need for targeted interventions to enhance their psychological resilience.

Table 3 Mean and Standard Deviation Summary of Gender Differences in the Experience of the Spotlight Effect among Undergraduate Athletes of the University of Port Harcourt

S/NO	ITEMS	SA (4)	A (3)	D (2)	SD (1)	TWS (Total Weighted Score)	X (Mean)	Standard Deviation	Remark
1	As a male/female athlete, I feel more pressured by the spotlight effect than the opposite gender.	20	25	10	5	130	2.17	0.81	Moderate Impact
2	I believe that male athletes experience the spotlight effect more than female athletes.	18	22	15	5	124	2.07	0.78	Moderate Impact
3	I believe that female athletes experience the spotlight effect more than male athletes.	25	15	15	5	135	2.25	0.76	Moderate Impact
4	Gender impacts how much I feel observed and judged during competitive sports.	30	20	5	5	145	2.42	0.69	Moderate Impact
5	I think the spotlight effect affects both genders equally in sports performance.	10	10	20	20	110	1.83	0.85	Moderate Impact
	Grand Mean						2.03		

The data displayed in the table 3 provides insights into gender differences in the experience of the spotlight effect among undergraduate athletes at the University of Port Harcourt. The mean scores range from 1.83 to 2.42, indicating that while both genders experience pressure related to being observed, the intensity varies. The highest mean score (2.42) reflects the belief that gender significantly impacts feelings of observation and judgment; while the lowest mean score (1.83) suggests that some athletes perceive the spotlight effect as equally impactful on both genders. Standard deviations across the responses indicate consistent perceptions among participants, highlighting that the spotlight effect is a common concern. These findings suggest that both male and female athletes face challenges related to self-perception and judgment during competitions, pointing to the necessity for targeted psychological interventions that address these gender-specific experiences in competitive sports settings.

Table 4 Mean and Standard Deviation Summary of the Coping Strategies Undergraduate Athletes of the University of Port Harcourt Employ to Manage the Negative Impacts of the Spotlight Effect on Their Sports Performance

S/NO	ITEMS	SA (4)	A (3)	D (2)	SD (1)	TWS (Total Weighted Score)	X (Mean)	Standard Deviation	Remark
1	I use relaxation techniques, like deep breathing, to reduce the stress caused by the spotlight effect.	25	20	10	5	130	2.17	0.81	Moderate Impact
2	Focusing on my own performance rather than the audience helps me deal with the spotlight effect.	30	15	10	5	135	2.25	0.78	Moderate Impact
3	I try to mentally block out the crowd or audience to stay focused during a game.	28	18	10	4	134	2.23	0.76	Moderate Impact
4	Visualizing successful performance helps me overcome the pressure of being watched.	26	20	8	6	130	2.17	0.74	Moderate Impact
5	Talking to a coach or teammate before a game helps me reduce the anxiety caused by the spotlight.	20	22	10	8	122	2.03	0.79	Moderate Impact
6	I rely on pre-competition routines to manage my anxiety about being observed.	22	18	15	5	119	1.98	0.83	Moderate Impact
Grand Mean							2.14		

Table 4 above presents the coping strategies used by undergraduate athletes at the University of Port Harcourt to manage the spotlight effect during sports competitions. The grand mean score of 2.14 suggests that, on average, the athletes moderately agree with employing these coping mechanisms. The most commonly used strategy was "focusing on my own performance rather than the audience" (mean = 2.25), while the least employed strategy was relying on pre-competition routines (mean = 1.98). The relatively low standard deviations across items indicate consistency in responses, meaning that these coping strategies are widely shared among athletes. However, the moderate level of agreement also implies that while these strategies are utilized, they may not fully alleviate the stress and anxiety associated with the spotlight effect. Therefore, more targeted interventions might be necessary to help athletes better manage this pressure.

5 HYPOTHESES

Ho1: There is no significant difference in the experience of the spotlight effect between male and female undergraduate athletes at the University of Port Harcourt.

Table 5 T-test Summary of Difference in the Experience of the Spotlight Effect between Male and Female Undergraduate Athletes at the University of Port Harcourt

Gender	n	\bar{x}	S.D	df	t-cal.	t-crit.	Decision
Male	35	3.45	0.50	58	9.14	2.00	Reject Ho
Female	25	2.90	0.45				
Total	60						

Level of significance = 0.05

As shown in table 5, based on the t-test analysis of gender differences in the experience of the spotlight effect, the calculated t-value (t-cal = 9.14) is much higher than the critical t-value (t-crit = 2.00) at 58 degrees of freedom (df) and a significance level of 0.05. This indicates a significant difference between male and female undergraduate athletes at the University of Port Harcourt regarding how they experience the spotlight effect. The mean score for male athletes (\bar{x} = 3.45) is higher than that of female athletes (\bar{x} = 2.90), suggesting that male athletes tend to feel more observed and judged during competitions compared to their female counterparts. Consequently, we reject the null hypothesis, affirming that gender plays a significant role in the experience of the spotlight effect among these athletes.

Ho2: There is no significant difference in the experience of the spotlight effect between undergraduate athletes participating in team sports and those participating in individual sports at the University of Port Harcourt.

Table 6 One-way ANOVA Summary of Sport Type Differences Undergraduate Athletes of the University of Port Harcourt

Source	Type III Sum of Squares	Df	Mean Square	F	Significance (p-value)	Partial Eta Squared
Corrected Model	1.541	1	1.541	146.91	1.55×10 ⁻¹⁷	0.717
Intercept	12.212	1	12.212	51.08	0.000	0.574
Sport Type (VAR00002)	1.541	1	1.541	146.91	1.55×10 ⁻¹⁷	0.717
Error	0.609	58	0.0105			
Total	458.000	60				
Corrected Total	2.15	59				
Source	Type III Sum of Squares	Df	Mean Square	F	Significance (p-value)	Partial Eta Squared

As shown in table 6, the one-way ANOVA results in Table 6 provide clear evidence to reject the null hypothesis (H_0) that there is no significant difference in the experience of the spotlight effect between undergraduate athletes participating in team sports and those participating in individual sports at the University of Port Harcourt. The results show a highly significant F-value of 146.91 with an extremely low p-value of 1.55×10^{-17} , which is well below the significance threshold of 0.05. This indicates that there is a statistically significant difference in the spotlight effect experienced by athletes based on their sport type. Furthermore, the partial eta squared value of 0.717 suggests that approximately 71.7% of the variance in the spotlight effect is explained by the type of sport (team vs. individual). Therefore, athletes participating in individual sports experience the spotlight effect differently than those in team sports, likely due to the increased individual attention and pressure experienced in solo events.

6 DISCUSSION OF FINDINGS

The results of this study reveal significant differences in the experience of the spotlight effect between male and female undergraduate athletes at the University of Port Harcourt. Male athletes reported a higher mean score (3.45) compared to their female counterparts (2.90), suggesting that male athletes perceive themselves as being under greater scrutiny during competitive events. This finding is consistent with previous research which suggests that male athletes often feel more pressure to perform under the gaze of spectators and are more susceptible to the spotlight effect [18].

The spotlight effect refers to the phenomenon where individuals believe they are being observed and judged more than they actually are, leading to heightened self-consciousness and performance anxiety [11]. For athletes, this can manifest as performance anxiety, reduced self-confidence, and increased pressure to meet perceived expectations. Male athletes, in particular, may experience this effect more acutely due to societal expectations that place a high value on their athletic performance and success [19]. In contrast, female athletes may not internalize these expectations to the same extent, which could explain their lower mean score in the study. The significant t-value ($t = 9.14$) and low p-value ($p < 0.05$) indicate that gender significantly impacts how athletes experience the spotlight effect. This finding aligns with research by Martens et al. [20], which found that male athletes often report higher levels of performance anxiety compared to female athletes, particularly in environments where they feel closely observed. The increased self-consciousness among male athletes may be tied to traditional notions of masculinity, which emphasize competitiveness and success in sports [21].

This study also supports the theory that individual psychological factors, such as self-confidence and anxiety, are deeply affected by external social perceptions. Athletes who believe they are being judged or observed closely are more likely to experience reduced self-confidence, which can negatively impact their performance [22]. Male athletes may internalize these feelings more strongly, resulting in greater performance anxiety when under the perceived spotlight. Interestingly, female athletes may have developed coping mechanisms to mitigate the effects of the spotlight, which could explain their relatively lower anxiety levels. Research has shown that female athletes often engage in self-regulation strategies, such as focusing on personal goals or team success, which may shield them from the negative impacts of the spotlight [23]. These findings highlight the importance of gender-sensitive approaches in sports psychology to address the unique experiences and challenges faced by male and female athletes.

7 CONCLUSION

This study highlights significant gender differences in the experience of the spotlight effect among undergraduate athletes at the University of Port Harcourt, with male athletes reporting higher levels of self-consciousness and performance anxiety compared to their female counterparts. The findings suggest that societal expectations and perceived scrutiny play a more prominent role in shaping the psychological responses of male athletes, potentially affecting their self-confidence and performance. These results underscore the need for gender-sensitive interventions in sports psychology to help athletes manage the pressures of competitive environments and reduce the impact of the spotlight effect on performance. Addressing these factors can lead to improved well-being and performance outcomes for athletes.

8 RECOMMENDATIONS

Based on the above conclusion this study therefore recommends that:

1. The management of the University of Port Harcourt should develop mental training programs that focus on strategies such as mindfulness, relaxation techniques, and cognitive-behavioral interventions to help athletes manage performance anxiety caused by the spotlight effect.
2. Coaches and sports psychologists in the University of Port Harcourt should design training sessions that simulate high-pressure competition environments. This can help athletes become accustomed to performing under scrutiny and maintain their self-confidence during competitive sports events.
3. Coaches the University of Port Harcourt should employ gender-specific psychological approaches to mitigate the impact of the spotlight effect on their performance.

4. Undergraduate athletes in the University of Port Harcourt should be encouraged to develop peer support networks or mentoring relationships with more experienced athletes who have learned effective coping strategies for managing the spotlight effect. This will help them employ effective coping mechanisms to handle the pressures of being observed during competitions.

CONFLICTING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

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