

Impacts of Spotlight Effect on Performance Anxiety and Self-Confidence Among Athletes in University of Port Harcourt

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Abstract

This study investigates the impacts of the spotlight effect on performance anxiety and self-confidence among athletes in University of Port Harcourt. The spotlight effect refers to the tendency of individuals to over-estimate 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, athletes, sport type, and coping strategies.

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Introduction

The spotlight effect is a psychological phenomenon that causes people to believe they are being noticed more than they really are. This phenomenon is due to a cognitive bias in favor of self and against others: people tend to think more about themselves than others and, therefore, have a distorted picture of the attention others pay them (Weinstein, Ryan, & Deci, 2020). In social situations, people seem to think they are being watched harder than they are, with the by-product of this effect being more self-consciousness. In performance-oriented contexts, like athletics, athletes often feel that their mistakes, behavior, or appearance are being closely evaluated by fans, other players, or their coaches. This perception may raise anxiety and tension levels, particularly in pressure situations such as competitions or major occasions (Greenlees, Eynon, & Thelwell, 2021).

The spotlight effect is particularly relevant in sports due to the competitive, public nature of athletic performance. Athletes feel as if they are always under a microscope, whether it's on the training ground, during competitions, or just while going through the motions in everyday life. The presence of spectators, the media interest and the importance given to performance outcomes might increase the feeling of being under the microscope (Tod, Eubank, & Lavallee, 2019). And collegiate athletes, perhaps, feel this emotion more so — they're under pressure to prove themselves, to meet or exceed expectations and gain future opportunities in sport or academics. Thus, their psychological condition, as well as physical performance, is heavily impacted by the spotlight effect.

Understanding of the spotlight effect is fundamental because it affects two main constructs in sports psychology: performance anxiety and self-confidence. Performance anxiety, or the pressure the athlete feels before competing in a high-pressure environment. These physiological consequences include sweating, tremors, or increase heart rate, and psychological effects include fear of failure or inability to concentrate (Turner & Jones, 2022). In situations where athletes feel they may be under close watch, as illustrated by the spotlight effect, their performance anxiety can increase, significantly limiting their ability to perform skills effectively in competition.

To further contextualize this exploration of the psyche, it is necessary to relate this role of imagined social attention to established, psychological theories regarding the effects of social scrutiny on motivation, anxiety and performance outcomes.

Two psychological theories that are applicable to the investigation of the experiences of athletes and the spotlight effect are Self-Determination Theory (Deci & Ryan, 2000) and Social Evaluation Theory (Leary, 1992).

Athletes' motivation and well-being are determined according to the perspective of the Self-Determination Theory (SDT) by their experiences of autonomy, competence and relatedness. When athletes believe that they are under a magnifying glass, their feelings of competence are challenged, and this may result in increased performance anxiety and reduced confidence.

Likewise, applying Social Evaluation Theory, individuals feel nervous when they expected negative judgment from others. In the world of sports, if athletes feel like they're being watched and evaluated at levels higher than normality, they focus on themselves, don't perform as well.

Conceptual frameworks are suggested to help understand the impact of spotlight effect on anxiety and self-confidence in university athletes, and they emphasize the relevance of psychological skills that reinforce individuals' tendencies toward intrinsic motivation and resistance toward evaluative threats.

In contrast, athletic self-confidence relates to an athlete's belief that they can successfully perform. High self-confidence is related to enhanced performance outcomes, because confident athletes are more willing to take risks, to bounce back quickly from mistakes, and to keep their focus despite pressure (Machida, Ward, & Vealey, 2021). The spotlight effect can erode this confidence by letting athletes worry too much about what others see them doing, leading them to self-doubt and indecision instead. Being constantly monitored may negatively impact athletes psychologically as their self-esteem or self-confidence does not always remain stable, which might result in a paralyzed athlete during the decisive parts of a competition (Pineda-Espejel et al., 2020).

It is important and helpful to know about the spotlight effect in sports as it can either enhance or interfere with an athlete's performance. If coaches, trainers, players recognize the spotlight effect and its influences on anxiety and self-confidence, they may take steps to reduce its negative effects. Psychological strategies such as mindfulness, positive self-talk and reframing may help direct the attention of athletes away from perceived external judgements towards the

performance itself (Brown & Fletcher, 2021). This might mean reduced anxiety levels and an increase in self-confidence, which could potentially improve overall performance outcomes.

This is especially important with undergraduate athletes, who are still developing their academic and athletic careers, and must learn to effectively manage the spotlight effect. These sports participants are subjected to multiple demands—maintaining academic performance, meeting team standards, and navigating their social environments. Thus, the additional psychological stress that comes from the spotlight effect can increase the pre-existing stresses already causing suboptimal performance (Lazarus, Porat, & Stephan, 2021). Understanding why this phenomenon are important for mental resilience and for long-term peak performance at work and on the field.

Within the domain of university athletics, particularly in institutions like the University of Port Harcourt, addressing and managing the spotlight effect could substantially contribute to athlete growth. Athletes in a university setting may already deal with being locally famous, having media attention, and being subject to peer expectations which may amplify the feeling of being scrutinized (Myers, Hill, & Worsfold, 2020). Does bringing an awareness of the spotlight effect to bear on sports programs help players develop stronger mental skills to combat performance anxiety and boost self-confidence to improve performance in competitions?

Given the competitive nature of today's athletic landscape, a particularly at the collegiate level, maintaining composure and confidence is vital to success. Athletes that manage the spotlight effect well tend to hold their composure through high-pressure situations and realize peak performance. Understanding this phenomenon is beneficial for not only the individual athletes but also for the whole team as those players with higher levels of self-belief and lower levels of fear can act better leaders and teammates on the pitch (Hall, Hill, & Jones, 2020).

Review of the Literature

❖ The Spotlight Effect and Its Cognitive Foundations

People overestimate the extent to which other people notice what they are doing. The spotlight effect was initially investigated by Gilovich, Medvec, and Savitsky (2000), who demonstrated that the bias is a consequence of egocentric thought,

whereby people mistakenly believe that others share their self-focus. Greenlees, Eynon, Thelwell (2021) observed that athletes have a tendency to overestimate perceived social scrutiny, particularly in high visibility public spectacles with an audience and media presence. This basic understanding elucidates the cognitive foundation of the spotlight effect, and lays the foundation for consideration of its psychological influences in athletes.

❖ **Performance Anxiety in Athletes**

Taking advantage of this cognitive bias, the spotlight effect has been investigated in regards to its relevance to performance anxiety. Preperformance anxiety is defined as the fear or apprehension experienced by an athlete before and/or during competition. Turner and Jones (2022) also highlighted that athletes' anxiety was greatly related to the perceived social evaluation and was generally related to symptoms of other forms of anxiety including physiological symptoms (e.g., increased heart rate, muscle tension), cognitive symptoms (e.g., fear of failure), and so on. Similarly, Grossbard et al. (2019) discovered that athletes with an enhanced level of self-awareness because of the spotlight effect have more pronounced levels of distraction and performance decrements. Taken together, these results imply that spotlight effects augment performance anxiety that in turn disrupt athletes' focus and skill performance.

❖ **The Role of Self-Confidence in Athletic Performance**

Rising above anxiety, the spotlight effect leaches confidence from athletes as well. Believing (faith) in oneself, the conviction in one's ability to success, is a fundamental requirement to be able to perform at one's best in sport. Machida, Ward, & Vealey (2021) also noted that high self-confidence is associated with performance enhancement, resilience, and taking risk. Athletes affected by the spotlight effect develop a lack of self-confidence, which is a consequence of being overly concerned about outside judgment, an attitude that can negatively affect self-reliance. Baumeister (1984) referred to this as "choking under pressure," as performance suffers due to elevated levels of self-awareness. Hanton, Mellalieu, and Hall (2020) further confirmed that cumulative self-confidence athletes are able to regulate pressures more effectively, indicating that minimizing the spotlight phenomenon is an essential component in controlling self-confidence during competition.

❖ **Gender and the Spotlight Effect**

Besides the general effect, players tend to experience the spotlight effect differently depending on their gender. Nicholls et al. (2020) showed that female athletes view themselves as noticeably more self-conscious and socially anxious when they compete than men with appearance- and behavior-related expectations imposed by society. Conversely, Martens et al. (2019) and Wong and Zhang (2020) argued that male athletes may have more performance anxiety in the face of scrutiny due to the cultural focus on masculinity and sport success. These different directions emphasize the importance of gender considerations in discussing psychological consequences of the spotlight effect.

❖ **The Role of Experience and Expertise**

The spotlight effect plays neuromodulation through being a high-performance athlete. Myers, Hill and Worsfold (2020) looked into university-based athletes and found the novitiates were affected more by the spotlight effect than their more experienced brethren. As unacquainted with the effects of fame, such novice sportsmen and women lacked tools and techniques to combat the weight of peers judging their every move, raising their competitive apprehensions and rubbishing their self-belief. On the other hand, experienced athletes excelled at coping with the stresses that accompany scrutiny, often employing techniques of mental fortitude they'd practiced over years of competition. Lazarus, Porat and Stephan (2021) found that athletes accustomed to high-pressure situations, like elite competitions, developed the ability to perform in the spotlight. Their research emphasized that incorporating psychological training that targets the spotlight effect within sports programs could help young athletes cultivate their mental resilience.

❖ **Coping Strategies for the Spotlight Effect**

Several coping strategies have been proposed to help athletes in this scenario face the spotlight effect and associated anxiety. The works of Brown and Fletcher in (2021) deals with effectiveness of mindfulness therapies in overcoming performance anxiety caused by spotlight effect. Their research showed that mindfulness-enabled athletes learned to shift their focus away from external judgments and back to their performance. Reframing negative thoughts through cognitive restructuring and positive self-talk has been demonstrated to be effective (Weinstein et al., 2020). Pineda-Espejel et al. Psychological skills training, such as visualization and goal-setting, was similarly recommended to mitigate the effects of the spotlight effect (2020). These techniques help performers mentally adjust to high-risk visibility

situations by allowing them to get used to the sensation of being on display so that they become desensitized to the expectations of publicly engaged performance.

❖ **Team vs. Individual Sports**

Research indicates that the spotlight effect may manifest differently for team sports relative to solo sports. O'Connor and Arnold (2019) suggested that in team sports, attention is distributed amongst players, which might reduce the sensation of the individual feeling under attack. However, this influence may disproportionately depend on an athlete's role in a team. High-profile athletes or people in important roles could still face a heightened level of self-awareness due to the weight of their duties. Participants in individual sports (track and field, tennis, etc.) might note a more severe (dramatized) experience of the spotlight effect due to the singular focus on them.

Methodology

This study adopted a descriptive survey design to investigate the role of spotlight effect on performance anxiety and self-confidence of undergraduate athletes of University of Port Harcourt. Using a survey methodology, we collected self-reported perspectives and experiences of the spotlight effect among participants in real world sports contexts. This approach enabled the collection of quantitative data in order to identify links and trends between the spotlight effect, performance anxiety and self-efficacy. The population for this study was 144 undergraduates' athletes of the University of Port Harcourt, who had participated at university level sports tournaments. The athletes come from various sports branches, namely from team sports (soccer and basketball) and individual sports (athletics and tennis). 144 athletes were the estimated population counting. Such individuals were chosen as to their habitual involvement in competitive sports which makes them getting in front of an audience where they are subject to scrutiny, therefore more biased towards the phenomenon known as the spotlight effect.

Participants were selected for the research using a stratified random selection method. The segmentation was based on the type of sport (team sports vs. individual sports) and sex (male vs. female athletes). This ensured that a representative sample of athletes from all sports and both genders were included in the research. Cochran method for determining sample size in large populations was used; the sample size of 60 athletes was drawn from a population of 144 athletes.

Sample selection was stratified, which included 45 team sports and 15 individual sports participants. Data collection was primarily done using a self-structured questionnaire. Answers were recorded in a Likert scale fashion with 4 being Strongly Agree and 1 being Strongly Disagree, to determine the participants' anxiety, self-confidence, and assessment of the spotlight effect.

The questionnaire was validated for the instrument to three experts in sports and exercise. Their comments were summarized to improve the clarity, relevance, and adequacy of the items. The questionnaire's reliability was evaluated through pilot research involving 20 athletes, who were not part of the main study. Internal consistency of the questionnaire was determined by computing Cronbach's alpha as 0.85, demonstrating high reliability. Data was collected over the course of two weeks. The researcher introduced the surveys to participants before or after them going through their training sessions to avoid disruption in training. Participants were told the aims of the study and then assured their responses would remain anonymous. The athletes were given approximately 20 minutes to fill out the questionnaire. A total of 60 filled in questionnaires were collected and analyzed.

Descriptive statistics (means and standard deviations) were used to examine data captured, and inferential statistics (t-tests and one-way ANOVA) to test hypotheses. SPSS version 25 was used for all analyses, with significance set at $p < 0.05$ for all statistical testing. To illustrate the findings, results are shown in tabulated form. All participants provided informed consent prior to their involvement in the research. Respondents were assured that their answers would remain confidential and anonymous. Participants were informed that their participation was voluntary and that they could leave the study at any time without consequences.

❖ 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	20	25	10	5	115	1.92	0.78	Moderate Anxiety

S/NO	ITEMS	SA (4)	A (3)	D (2)	SD (1)	TWS (Total Weighted Score)	X (Mean)	Standard Deviation	Remark
	watching me during competitions.								
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 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 events

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 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 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.

Hypotheses

1. 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 H ₀
Female	25	2.90	0.45				
Total	60						

Level of significance = 0.05

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.

H₀₂: 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 Squared	Eta
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					

The one-way ANOVA results in Table 6 provide clear evidence to reject the null hypothesis (H₀₂) 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.

Discussion on Findings

The findings of the study revealed significant differences in the experience of the spotlight effect between male and female student athletes in the University of Port Harcourt. Male athletes scored the average score (3.45) higher than the average scores of female athletes (2.90), which denotes that male athletes think they are more within the expectation scope in competition. This finding is consistent with previous studies that suggest that male athletes are under additional performance pressure in front of fans than when they are alone and are more susceptible to the spotlight effect (Hatzigeorgiadis, Zourbanos, Mpoupaki, & Theodorakis, 2019).

The spotlight effect is the phenomena in which people believe they are being scrutinized and evaluated more than they actually are, leading to increased self-awareness and performance anxiety (Gilovich, Savitsky, & Medvec, 2000). To athletes, it could mean performance anxiety, decreased self-confidence, and increased stress to meet expectations that are not always even real expectations. In the context, male athletes may experience this impact more profoundly and intensely because society tends to enhance their sport performance and achievement (Wong & Zhang, 2020). On the flip side, female athletes might not adopt these expectations to the same level, hence accounting for their average lower score in the research. Due to a high absolute t-value ($t = 9.14$) with very low corresponding p-value ($p < 0.05$), we found that gender has a significant impact on athlete's experience under spotlight effect. This result is similar to the study of Martens et al (2019), which found that male athletes tend to have higher levels of performance anxiety than female athletes, particularly in contexts where they believe they're particularly scrutinized. This increase in self-awareness among male athletes could reflect traditional ideas of masculinity that emphasize competition and success in sports (Connell & Messerschmidt, 2021).

This finding further supports the idea that external social views significantly impact individual psychological characteristics (e.g. self-perception, confidence, and anxiety). Especially vulnerable are athletes who perceive that their performance is being closely assessed, subsequently impairing their self-efficacy and hampering on-field performance (Beilock & Carr, 2019). Male athletes may take these sentiments more to heart, resulting in even greater performance anxiety in the perceived spotlight. It may be that female athletes have coping mechanisms that lessen the constraining power of the limelight, explaining their relatively lower levels of anxiety. Research suggests that indeed, female athletes rely more on self-regulation strategies focused on personal goals or team success, which can buffer the negative impact of public observation (Reis et al., 2020). These findings emphasize the importance of gender-sensitive approaches to sports psychology for addressing the unique experiences and challenges experienced by male and female athletes.

Conclusion

This study uncovers patterns of experience consistent with the spotlight effect among student athletes at the University of Port Harcourt and identifies significant gender differences, with male athletes exhibiting higher levels of self-consciousness and performance anxiety. The results show how social expectations and perceived scrutiny affects male athletes psychologically, which may result in their lack of confidence or poor performance.

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.

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