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EXPLORING THE EFFECTS OF ANXIETY ON ATHLETES' PERFORMANCE: A CASE STUDY AT COLLEGE LEVEL

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KEYWORDS	ABSTRACT
	The current study aimed to investigate the effects of anxiety on performance of male and female volleyball and badminton players at college level. The population of study comprised male and female volleyball and badminton players of Government associate & commerce Colleges of district Mianwali. Three diverse types of standardized scales were adopted for data collection from participants. Moreover, researcher used quantitative research method for data collection. Descriptive statistics (Mean & SD), inferential statistics (two-way ANOVA) were used to analyze & tabulate collected information. It was found that that there is no significant correlation between male and female athletes' anxiety and volleyball & badminton performance, similar results were found about self-esteem and aggression. Moreover, there was no significant difference about anxiety level of players of different localities and same results found about self-esteem and aggression. The study findings are capable to reduce the effect of aggression and anxiety upon the players' performance. It may lead to strengthen players' sports performance, sports skills and self-esteem as in the shape of "sports package" to be used by field trainers and coaches.
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INTRODUCTION

Anxiety, self-esteem, and aggression are three key psychological factors that can have a significant impact on individual's mental health and well-being (Anto, & Jayan, 2016). These traits are deeply entrenched in human psychology and are closely tied to social dynamics of our species (Tolukan, Yildiz, Yenel, Yalcin, Stoica, Iordan & Ilie, 2024). There are various personality and psychological factors that contribute to manifestation and affected by anxiety, self-esteem, and aggression (Lee,

Sung, Song, Lee, Lee, Cho & Shin, 2018). The interplay amid anxiety, self-esteem, and aggression is visible in social interactions and everyday life. Kumar and Yadav (2014) conducted a research study which demonstrated that individuals experiencing mental distress often exhibit symptoms of anxiety. This can be particularly evident in contexts such as competitive sports environments, where anxiety is frequent occurrence. Robinson (2020) explained that there is a strong association amid anxiety and sports accent the need for coping strategies in these situations. Anxiety has positive & negative effects on athletes' performance (Bukhari, Fahd, Tahira & Yaseen, 2021). While excessive anxiety can be detrimental, moderate levels of anxiety can help athletes focus and stay alert during their performance.

Kumar (2014b) conducted study that demonstrated how anxiety levels can impact performance of young or inexperienced players. Their research suggests that players who experience high levels of anxiety tend to perform poorly, while those who remain too calm may also fail to perform up to their potential. Therefore, it is crucial for athletes to maintain sensible level of anxiety to achieve optimal performance. Robinson (2020) has also highlighted the importance of maintaining an appropriate level of anxiety for optimal sports performance. The author suggests that athletes should strive to achieve a moderate level of anxiety, as it can improve their performance by keeping them alert and focused (Taherkhani, Kaveh, Mani, Ghahremani & Khademi, 2023). Athletes with the lower self-efficacy might experience more debilitating anxiety, leading to poorer performance, while those with higher self-efficacy might be better equipped to handle anxiety (Yıldırım & Özgökçe, 2023). Several factors, such as type of sport, athlete's experience, and the competitive level, can influence the optimal level of anxiety required for optimal performance. In contrast to the above mentioned psychological variable self-esteem is leading factor which leads towards success in games & sports similarly in social life.

LITERATURE REVIEW

Anxiety is a commonly experienced emotional state among athletes of all levels, often triggered by perceived stress related to task performance under pressure (Beutel, Glaesmer, Wiltink, Marian & Brähler, 2010). It is characterized by cognitive and somatic components, such as worrying thoughts and physical activation levels, respectively (Mahmoud, Staten, Hall & Lennie, 2012). Anxiety can be either a temporary, situation-specific state or a stable part of an individual's personality known as trait anxiety (Khan, Khan, Khan & Khan, 2017). The researchers investigated specific triggers of anxiety for the college athletes likewise the competition pressure, performance expectations, time management challenges, and social factors and thus by identifying these triggers can lead to more targeted interventions to compare the effectiveness of different coping techniques on performance levels. (Yıldırım & Özgökçe, 2023). The literature revealed that there is a dire need to consider the dual pressure of academics and athletics upon college athletes. Analyze how balancing academic tasks with the athletic performance contributes to the anxiety and, in turn, how it impacts athletic outcomes for success.

Anxiety in Sport

Theories on relationship between arousal, anxiety, and athletic performance have been developed over the past few decades. Arousal refers to the intensity of physiological and psychological action

state which stimulates the individual to act (Smoll, Smith & Cumming, 2007). This intensity may have either negative or positive effects on a performance of an individual. For example, high level of anxiety/ arousal can produce muscle tension, a lack of concentration and fatigue (Bukhari, Fahd, Tahira & Yaseen, 2021). The key is to find the optimal balance between being too anxious and too calm. Moreover, it is essential to note that the relationship between anxiety and sports performance is complex and multidimensional (Tolukan, Yildiz, Yenel, Yalcin, Stoica, Iordan & Ilie, 2024). One of the earliest theories/models regarding performance and arousal is known as drive theory, which proposes the linear relationship between the two concepts. This means that as arousal increases, performance also increases. Nevertheless, this theory does not consider the athlete's skill level. If level of player's skill is not good, his/her performance may lead towards deteriorate as arousal rises (McNally, 2002). In this linking, this will give you a richer, more holistic understanding of the issue under considerations.

Anxiety & Sport performance

The sport anxiety is a hostile response that is inter linked with the stress of taking part in sports. Ford, Ildefonso, Jones and Barrow (2017) revealed that sport performance is broad concept that includes regular training and practice, struggle/competition, rehabilitation, injury prevention, and return - to-sport process. These domains are interconnected and can have a significant impact on each other (Marwat, Marwat & Khan, 2021). Research has shown that anxiety can be triggered by various factors such as intensity of the activity performed, an athlete's personality, their history, and their existing coping strategies. The early theories suggested that as anxiety (or arousal) increases, so does performance (Feng, Zhou, Dong & Wang, 2020). Still, these theories are not universally supported, as other models argue that high anxiety can lead to performance deterioration. Therefore, coaches and trainers should work closely with athletes to develop individualized strategies for managing anxiety and optimizing performance (Subathra, Elango & Subramani, 2021). Anxiety also affects sporting and social life. Interestingly, the same stressors that contribute towards the development of anxiety in practice or competition settings that can also lead to sport injury occurrence (Patel, Omar & Terry, 2010).

Hypotheses of Study

HO1: There is no significant correlation between male & female athlete anxiety & performance.
HO2: There is no significant difference about the anxiety level of the players of diverse localities.

RESEARCH METHODOLOGY

The research methodology is an exact process of taking steps or methods used to find, identified, selection of process and examining and analyzing the obtained information of research issue (Liu, Chen, Duan & Wang, 2019). In the existing study, the investigator used exploratory particularly descriptive research design to explore the phenomena. The investigator used cross-sectional survey research approach with quantitative research method for collection of required data. Thus, the population of this particular study comprised of the male and female volleyball and badminton players of Government associate and commerce Colleges of district Mianwali. Total number of male and female player are 288 in which 216 are volleyball and 72 Badminton male and female

players. As population is very limited and easily approachable, so census method was applied for sample selection of the study. The investigator adopted standardized scale of anxiety by Smith, Smoll, Cumming and Grossbard (2006) and used to analyze the Anxiety effect on college players' performance. The investigator personally visited the Govt. Associate and commerce Colleges of district Mianwali to collect the data. The data were collected from badminton and volleyball male and female players. The collected data was then put into SPSS to draw finding and conclusion. For data analysis, Statistical Package for Social Sciences (SPSS) version 26 was used. In the current study, the investigator used descriptive and inferential statistic. Descriptive statistics (Mean and standard deviation), inferential statistics (two-way ANOVA) was used to analyze and tabulate the collected information.

RESULTS OF STUDY

HO: There is no significant correlation between male and female athletes' anxiety and volleyball & badminton performance.

Table 1 Descriptive Statistics

Gender	Game Format	Mean	Std. Deviation	N
Male	V-Ball	3.8155	.22869	98
	Total	3.8155	.22869	98
Female	V-Ball	3.6105	.20365	89
	Badminton	3.5012	.24624	68
	Total	3.5632	.22888	157
Total	V-Ball	3.7179	.23965	187
	Badminton	3.5012	.24624	68
	Total	3.6601	.25936	255

Table 2 Levene Test of Equality of Error Variances

F	df1	df2	Sig.
.601	2	252	.549
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.			
a. Design: Intercept + GND*GF + GF			

Table 3 Tests of Between-Subjects Effects

Source	TSS	Df	MS	F	Sig.	PES
Corrected Model	4.301a	2	2.151	42.391	.000	.252
Intercept	3001.913	1	3001.913	59169.633	.000	.996
Gender	1.960	1	1.960	38.631	.000	.133
GameF	.460	1	.460	9.071	.003	.035
Gender*GameF	.000	0	.	.	.	.000
Error	12.785	252	.051			
Total	3433.208	255				
Corrected Total	17.086	254				
a. R Squared = .252 (Adjusted R Squared = .246)						

A two-way ANOVA was conducted that examined the effect of gender and game format on anxiety of players. There was statistically significant interaction amid effects of gender and game format on anxiety, p = .000. Simple main effects analysis showed that there was significant difference between males, females regarding anxiety (p = .000), and there were statistically significant differences amid game format (p = .003).

HO: There is no significant difference about anxiety level of the players of different localities in the current study.

Table 4 Localities-Based Group Differences

	Sum of Squares	df	Mean Square	F	Sig.
			ANOVA		
Between Groups	.737	2	.368	5.677	.004
Within Groups	16.350	252	.065		
Total	17.086	254			

The analysis between groups showed the significant effect, F (2, 252) = 5.677, p = 0.004, indicating a statistically significant difference in mean scores amid groups. The sum of squares between groups is 0.737, with 2 degrees of freedom, giving a mean square of 0.368. The sum of squares in the groups is 16,350, with 252 degrees of freedom. The sum of squares is 17,086, for a total of 254 observations. These results suggest that there is a significant difference in mean score on variable "mean Sanxs" between groups, as indicated by the significant F value and p value. The intergroup variance accounted for a weighty proportion of total variance, suggesting that group membership was related to difference in mean scores.

Table 5 Means for Groups in Homogeneous Subsets

	Locality	N	Subset for alpha = 0.05	
			1	2
Tukey B[a,b]	semi urban	82	3.6331	
	Urban	151	3.6496	
	Rural	22		3.8333
a. Uses Harmonic Mean Sample Size = 46.676.				
b. Group sizes are unequal. Harmonic mean group sizes are used. Type I error are not guaranteed.				

The results show that there is no significant difference in mean score between the semi-urban group (M=3.6331) and the urban group (M=3.6496) at an alpha level of 0.05. Nevertheless, the rural group (M=3,8333) had a slightly higher mean score than the semi-urban and urban groups in the present research study.

DISCUSSION

The existing study was carried out to examine the available literature in order to compare sports anxiety of male and female in volleyball and badminton games with empirical results. Population of current study comprised of male and female volleyball and badminton players of Government associate and commerce Colleges of district Mianwali. The investigator hypothesized that there is

no significant correlation between male and female athletes' anxiety and volleyball & badminton performance. The investigator applied two-way ANOVA to examine interaction between effects of gender and game format on anxiety. The simple effects analysis showed that there was significant difference between males and females regarding anxiety. The existing result was supported, it was found that no significance difference at college level in between male and female students' players with special reference to anxiety in games (Taherkhani, Kaveh, Mani, Ghahremani & Khademi, 2023). Similarly, Johnson and Ivarsson, (2011) found that was no significance difference in anxiety level in cricket game at school based on gender. The empirical study compared the anxiety level of the players of different localities and found that there was no significant difference in mean score between semi-urban.

The study was supported by Cox and Cox, (2002) there was no significance in amid rural and urban of college students. These interventions could include relaxation techniques, visualization exercises, or cognitive-behavioral therapy. While on the hand Tod, Thatcher and Rahman, (2010) found that rural students show high anxiety level as compare to rural players. Following are the findings of the current study found on the basis of analyses (Tolukan, Yildiz, Yenel, Yalcin, Stoica, Iordan & Ilie, 2024). The first hypothesis of existing research study was that there is no significant correlation between the male and female athletes' anxiety and volleyball and badminton performance. The investigators applied two-way ANOVA and found that there was significant difference between males and females regarding anxiety ($p = .000$), and there were statistically significant differences between game format ($p = .003$). Hypothesis was there was no significant difference about anxiety level of the players of different localities. The results show that there is no significant difference in mean score amid semi-urban group (M=3.6331) and the urban group (M=3.6496) at an alpha level of 0.05. However, the rural group (M=3,8333) had a slightly higher mean score than the semi-urban and urban groups.

CONCLUSION

In the existing study, the investigator tried to discuss the findings and conclusion in a simple way. The current study aimed to investigate comparative effects of anxiety on athletes' performance; a gender and format of sports-based study of the college level. The investigator tried to compare the relationship male and female athletes' anxiety and volleyball and badminton performance. It was found that there were no statistically significant differences between game formats. In addition to, the investigator indicated the significant difference about anxiety level of the players of different localities. It was found that there is the significant difference in mean score on the variable (semi-urban group and urban group). However, the investigator recommended that LPEs should develop anxiety-reducing interventions specifically for female athletes, as study results found significant difference in the anxiety levels between male and female athletes. Thus, according to statistically significant variations amid game formats and anxiety, different game formats may cause athletes to experience varied levels of anxiety. To better understand the exact elements of each game style that influence anxiety levels, more research should be done. LPEs can then utilize this information to create training and preparation plans that assist the athletes in overcoming anxiety related to various game forms.

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