

## STRESS AMONG HIGH, MEDIUM AND LOW LEVEL ACHIEVERS OF MEN AND WOMEN VOLLEYBALL AND BASKETBALL PLAYERS

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### ABSTRACT

*The purpose of the study was to find out the differences on stress among high, medium and low achievers of men and women players of volleyball and basketball in the competitive situation. Total of 300 players consisting of 75 men (25 high, 25 medium and 25 low achievers) and 75 (25 high, 25 medium and 25 low achievers) women volleyball players, and 75 men (25 high, 25 medium and 25 low achievers) and 75 (25 high, 25 medium and 25 low achievers) women basketball players. The age of the subjects was between 19 and 26 years. High achievers are those who had participated at Inter-national level competitions representing the country, medium achievers are National level players and low achievers are the players who competed at State level competitions representing the district. To measure Stress, The standard psychological tool devised by Everyly and Girdano's was used to quantify psychological stress. This test consists of 14 statements. Each statement consists of 4 responses: Almost always true, usually true, seldom true, never true, was used in this study for collection of data. It was concluded that there was no significant differences in psychological variable, such as stress among the different groups of players, namely, volleyball men, volleyball women, basketball men and basketball women. It was concluded that there was no significant differences among different levels of players, name by, high, medium and low achievers of men and women volleyball and basketball players, on stress. It was concluded that there was no significant interaction effect among high, medium and low achievers of men and women volleyball and basketball players.*

*Key words: Stress, Achievers, and Competitive Situation.*

### INTRODUCTION:

Today, sport and exercise psychologists have begun to research and provide information in the ways that psychological well-being and vigorous physical activity are related. This idea of psychophysiology, monitoring brain activity during exercise has aided in this research. Also, sport psychologists are beginning to consider exercise to be a therapeutic addition to healthy mental adjustment. Modern man lives in a mental world in which the important skills of success

are based on his psychological activities. Increasing pressures on human mind in the pursuit of materialistic philosophy are making in roads into the happiness of life.

Kamalesh (1983) says psychology is the science of the activities of an individual in relation to the environment. The activity of the soul or the mind in other words is the internal behavior manifested through the physical or the outer for thinking and doing are point on the same stretch and are inseparable struggle for survival. In view of the growing importance of anxiety in the diverse fields of human activity, psychiatrists, educationists and physical educationists depend on the method of measuring individual anxiety level in most of their investigations.

In everyday life we are subjected to a wide range of pressures. We also have a wide range of resources and strategies for coping with pressure. Sometimes we will cope well and will not feel that the pressure is having any adverse effect upon us. At other times we will have difficulty in dealing with the situation and that is when we may use the term “stress”.

In this regard a simple but accurate definition of stress is: “Stress occurs when the pressures upon us exceed our resources to cope with those pressures”. Indignant of achievement is predominant in almost all animals and human beings. Man as a special being is gifted with invaluable mental stamina, which at times remains hidden or rather found suppressed due to the environment and sociological function to which the individual is exposed to.” (Mirka, 1996)

#### OBJECTIVES OF THE STUDY:

The objective of the study is to find out the differences on stress among high, medium and low achievers of men and women players of volleyball and basketball in the competitive situation.

#### HYPOTHESIS:

It was hypothesized that there would be significant difference in the stress, among men and women Volleyball and Basketball players.

#### METHODOLOGY:

Thus the study covered a total of 300 players consisting of 75 men (25 high, 25 medium and 25 low achievers) and 75 (25 high, 25 medium and 25 low achievers) women volleyball players, and 75

men (25 high, 25 medium and 25 low achievers) and 75 (25 high, 25 medium and 25 low achievers) women basketball players. The age of the subjects was between 19 and 26 years.

#### High achievers

The investigator selected the players who competed at inter-national level competitions representing the country is considered as high achievers in the respective game.

#### Medium achievers

Select medium achievers, the players who competed at national level competitions representing the state level competitions is considered as medium achievers in the respective game.

#### Low achievers

Selection of low level competitors the investigator selected the players who competed at district level competitions representing the district at state level competitions is considered as low achievers in the respective game.

#### Questionnaire

The standard psychological tool devised by Everyly and Girdano's was used to quantify psychological stress. This test consists of 14 statements. Each statement consists of 4 responses: Almost always true, usually true, seldom true, never true.

#### RESULTS OF THE STUDY:

The results on comparative analysis on psychological variable, stress among volleyball men, volleyball women, basketball men and basketball women players of different levels (high, medium and low) as statistically analysed through 4 x 3 factorial analysis of variance was presented in Table I and II.

Table .I Descriptive Statistics Containing Mean, Standard Deviation on Stress of High, Medium and Low Achievers of Men and Women Basketball and Volleyball Players

Group	Level	M	SD	N
Men	High Achievers	23.20	5.679	25
	Medium Achievers	24.00	4.673	25
	Low Achievers	23.36	5.544	25

	Total	23.52	5.257	75
Volleyball Women	High Achievers	23.36	5.544	25
	Medium Achievers	23.24	3.767	25
	Low Achievers	23.24	3.767	25
	Total	23.28	4.379	75
Basketball Men	High Achievers	21.36	5.978	25
	Medium Achievers	25.32	3.794	25
	Low Achievers	24.60	5.188	25
	Total	23.76	5.291	75
Basketball Women	High Achievers	22.68	5.970	25
	Medium Achievers	22.56	3.465	25
	Low Achievers	24.24	4.684	25
	Total	23.16	4.813	75
Total	High Achievers	22.65	5.762	100
	Medium Achievers	23.78	4.024	100
	Low Achievers	23.86	4.803	100
	Total	23.43	4.929	300

Table I shows the obtained mean values on stress. As shown in the table the volleyball men high achievers' mean stress was 23.20 with standard deviation  $\pm 5.67$ , volleyball men medium achievers' stress was 24.00 with standard deviation  $\pm 4.67$ , volleyball men low achievers stress was 23.36 with standard deviation  $\pm 5.54$ . Thus, taking into consideration all the volleyball men their mean stress was 23.52 with standard deviation  $\pm 5.25$ .

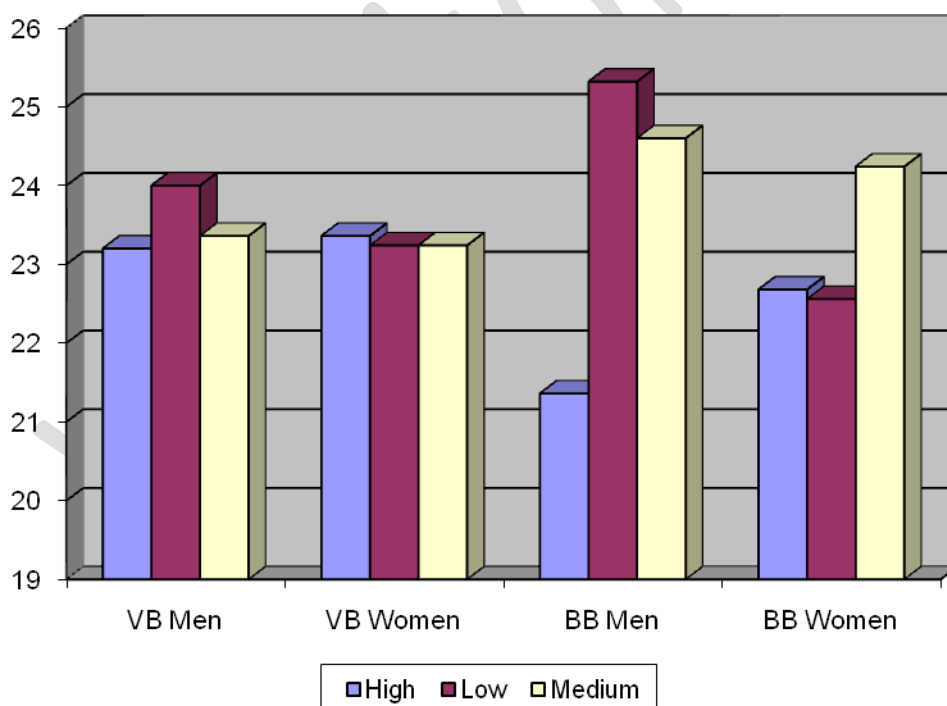
The volleyball women high achievers' stress was 23.36 with standard deviation  $\pm 5.54$ , volleyball women medium achievers' stress was 23.24 with standard deviation  $\pm 3.76$ , volleyball women low achievers' stress was 23.24 with standard deviation  $\pm 3.76$ . Thus, taking into consideration all the volleyball women players, their mean stress was 23.28 with standard deviation  $\pm 4.37$ .

Table I shows the obtained mean values on stress. As shown in the table the basketball men high achievers' mean stress was 21.36 with standard deviation  $\pm 5.97$ , basketball men medium achievers' stress was 25.32 with standard deviation  $\pm 3.79$ , basketball men low achievers stress was 24.60 with standard deviation  $\pm 5.18$ . Thus, taking into consideration all the basketball men their mean stress was 23.76 with standard deviation  $\pm 5.29$ .

The basketball women high achievers' stress was 22.68 with standard deviation  $\pm 5.97$ , basketball women medium achievers' stress was 22.56 with standard deviation  $\pm 3.46$ , basketball women low achievers' stress was 24.24 with standard deviation  $\pm 4.68$ . Thus, taking into consideration all the basketball women players, their mean stress was 23.16 with standard deviation  $\pm 4.81$ .

Thus, the results in table I proved that there existed mean differences among different groups of players of their level of achievements. The mean values stress of the players of different groups is shown in Figure I.

Figure .I Bar Diagram Showing the Mean Values on Stress of Different Group of Players



To test the significance differences, the investigator subjected the data collected by using 4 x 3 factorial (design) analysis of variance and the obtained results on stress were presented in table II.

Table II 4 X 3 Factorial Analysis Of Variance for Stress of High, Medium and Low Achievers of Volleyball and Basketball Players.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Factor 'A'	15.930	3	5.310	0.219	0.883
Factor 'B'	91.580	2	45.790	1.891	0.153
Factor 'A' * 'B'	184.020	6	30.670	1.267	0.273
Error	6974.000	288	24.215		
Total	171955.000	300			

\*Significant at 0.05 level.

Table II shows the analyzed data on Stress. Factor 'A' shows four categories of players, namely, volleyball men, volleyball women, basketball men and basketball women. Factor 'B' shows three categories of achievement levels, namely, high, medium and low. Factor A \* B shows the interaction effect between 4 groups of players and 3 levels of players.

The obtained 'F' ratio of Stress for factor 'A' was 0.219 and was not significant at as the obtained level of significance 0.883 which less than the required level of 0.05 level. As the obtained 'F' ratio was less than the required significance level, it was found that there was insignificant difference among the four groups of players. As the factor 'A' was insignificant, the post hoc test was not followed as stated by Rothstein (1985).

The obtained 'F' ratio of Stress for factor 'B' was 1.89 and was not significant at as the obtained level of significance 0.153 which less than the required level of 0.05 level. As the obtained 'F' ratio was less than the required significance level, it was found that there was insignificant difference

among the four groups of players. As the factor 'B' was insignificant, the post hoc test was not followed as stated by Rothstein (1985).

The obtained 'F' ratio (Table II) for the factor 'A' and 'B' was 1.267 which was found significant at 0.273. The obtained significance level was less than the required level of 0.05. Hence, it was proved the interaction among group of players of different achievement levels was found to be insignificant. Since insignificant results were obtained on interaction simple effect test was not applied to find out the overall cell means significant difference as stated by Clarke and Clarke (1972).

The comparative analysis made on psychological variable stress on high, medium and low achievers of men and women volleyball and basketball players are presented in Table II. The 4 x 3 factorial analysis proved that obtained F value of 0.219 on Factor A, determined to find out differences between the four groups of players, namely, volleyball men, volleyball women, basketball men and basketball women. The obtained F significance of 0.883 was less than the required significance level of 0.05 level to be significant. Hence, it was proved that there was no significant difference.

The factorial analysis of variance on Factor B, to find out the differences among high, medium and low achievers, proved that the obtained F value of 1.891 was significant at 0.153, which is less than the required 0.05 level. Hence, it was proved that there was no significant difference in psychological variable, stress, among different levels of achievers.

The interaction Factor A \* B analysis proved that the obtained F value of 1.267 was less than the required table value to be significant at 0.05 level. Hence, it was proved that there was no significant differences on interaction on stress among men and women volleyball and basketball players. It was found that the stress to win the game is almost equal between volleyball and basketball players, as well as men and women and different levels of achievement, high, medium and low levels.

Rimmele U, et.al. (2009) reported that physical activity plays a key role in the control of neuroendocrine, autonomic, and behavioral responses to physical and psychosocial stress. Different levels of competitiveness among groups did not mediate stress reactivity. Rimmele U, et.al. (2007) found that physical activity has proven benefits for physical and psychological



well-being and is associated with reduced responsiveness to physical stress and physical activity may provide a protective effect against stress-related disorders. The findings of this study showed there was no significant difference in psychological variable, stress among high, medium and low achievers of men and women volleyball and basketball players. Thus the academic foundations laid by Rimmel et.al. (2009) that physical activity plays a key role in the control of neuroendocrine, autonomic, and behavioral responses to physical and psychosocial stress is agreed through the findings of the study.

It was concluded that there was no significant differences in psychological variable, such as stress among the different groups of players, namely, volleyball men, volleyball women, basketball men and basketball women. It was concluded that there was no significant differences among different levels of players, namely, high, medium and low achievers of men and women volleyball and basketball players, on stress. It was concluded that there was no significant interaction effect among high, medium and low achievers of men and women volleyball and basketball players.

#### References

1. Kamlesh, M.L. (1983), Psychology of Physical Education and Sports, New Delhi: Metropolitan Book company, Pvt Ltd., P. 38.
2. Everly, S. and D. Girdano (2009) Controlling Stress and Tension (8<sup>th</sup> Ed), New York: Benjamin Cummings
3. Clarke, H. and Clarke, D.H. (1972). Application of Measurement in Physical Education, Prentice Hall, Inc., Englewood Cliffs, New Jersey, U.S.A.
4. Rimmel U, et.al. (2007) "Trained men show lower cortisol, heart rate and psychological responses to psychosocial stress compared with untrained men.", Psychoneuroendocrinology. Jul;32(6):627-35.
5. Rimmel U, et.al. (2009) "The level of physical activity affects adrenal and cardiovascular reactivity to psychosocial stress.", Psychoneuroendocrinology. Feb;34(2):190-8.
6. Alderman, R.B (1974). Psychological Behaviour in Sports, Philadelphia: W.B.Saunders company, P. 135.
7. [www.en](http://www.en) Wikipedia