ANXIETY AMONG TRACK AND FIELD ATHLETE

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ABSTRACT

Sports performance, like any other type of human performance, is a highly complex process and a product of several internal and external factors encompassing all the aspects of human personality and to achieve excellence in it, it is becoming more and more significant to identify and utilize the psychological factors that are particularly important in sports settings, specially those related to athletic performance. Anxiety is one psychological factor, which plays crucial role in the final outcome of all the sports encounters. It is being explored incessantly in different sports settings, regarding different sports groups and at different levels. Through the present study, an attempt has been made to investigate the same among the national level track and field athletes. Subject (N-286) was athletes who had participated at 63rd Inter University athletic championship which was held at Gulbarga University, Gulbarga form 16th to 21st January, 2003. The sample consisted of 150 male and 136 female athletes. Similarly, there were 144 athletes form successful group and 142 form unsuccessful category. In all 122 were form Northern region and 164 from Southern region. The age group of 18 to 25 years studying at the college and university levels. To collect the data "Sinha"s Comprehensive Anxiety Test (1995)" was administered to measure state and trait anxiety and "Marten"s Inventory (1977)" was administered to measure the sports competition anxiety. Results regarding the state and trait anxiety indicated that the female group of athletes was more anxious as compare to male counterpart. The interaction effect between region and gender as well as between performance and gender were found significant. The athletes form Northern region, unsuccessful as well as female groups were higher level of sports competition anxiety as compared to athletes from southern r egion, successful and male groups respectively. Interaction between region and performance only was found significant. Any other results were not found significant.

 Key words: Anxiety, Field Athlete, Psychological Factors

INTRODUCTION

Society takes pride in the performance of athletes who represent a specific region or county. Actually athlete"s ability depe nd not only on his physical, technical and tactical qualities but also on his psychological profile. Therefore, the psychological considerations have assumed very significant global interest in the domain of sports. The effect of anxiety on motor performance has become a major topic of interest to sports psychologist. The word anxiety means to designate a strongly personal, phenomenally experienced, feeling of distress and anguish. According to Frost (1971) "Anxiety is an uneasiness and feeling of forbidding often found when a person is about to embark on a hazardous venture: it is often accompanied by a strong desire to excel" [1-6].

METHODOLOGY

This study was conducted to find out the different levels of Anxiety among athletes form northern and southern regions, successful and unsuccessful and male and female athletes. The study was conducted on 286 athletes who had participated in the 63rd all India Inter University athletics Championship, which was held at Gulbarga University, Gulbarga, Karnataka form 16 th to 21st January, 2003. The sample consisted of 150 male and 136 female athletes. Similarly, there was 144 athletes form successful group and 142 from unsuccessful category. In all 122 were form northern region and 164 form southern region. The whole sample consisted of 286 s ubjects in the age group of 18 to 25 years studying at the college and university levels

TEST USED

For the purpose of collecting the data from all the subjects the following test were used:

To measure State and Trait Anxiety, Sinha"s Comprehensive Anxiety Test (SCAT) developed by Sinha and Sinha (1995) was used.

To measure Sports Competition Anxiety, Marten"s Inventory (1977) was used.

STATISTICAL DESIGN

The basic statistics, such as the mean and SD were calculated for the groups based on region, performance, and ge nder. Analysis of variance (2x2x2 factorial design) was used to find out the significance of differences and the interaction effect of region, performance and gender.

RESULTS

TABLE – 1(a)

ANOVA (2X2X2) RESULTS WITH REGARD TO NORTHERN AND SOUTHERN REGIONS, SUCCESSFUL AND UNSUCCESSFUL, MALE AND FEMALE ATHLETES AND THEIR INTERACTION EFFECTS ON THE VARIABLE STATE AND TRAIT ANXIETY

Source of Variance	SS	df	Ms	F- value
Northern & southern Region	275.36	1	275.36	1.86
Successful and Unsuccessful	185.88	1	185.88	1.26
Male & Female	748.83	1	748.83	5.07*
Region x Performance	403.76	1	403.76	2.73
Region x Gender	810.55	1	810.55	5.48*
Performance x Gender	798.24	1	798.24	5.40*
Region x performance x gender	224.42	1	224.42	1.52
Within (Residual)	**41083.14**	**278**	**147.78**	

* $p < 0.05$

A perusal of results regarding 2x2x2 factorial design presented in Table-1(a) with regard to the variable State & Trait Anxiety would show that the values of Northern and Southern Regions were SS=275.36, df=1 and Ms=275.36. The calculated F-value was found to be 1.86 which was not significant. The results regarding the two performance groups i.e. successful and unsuccessful revealed that these two groups had obtained SS=185.88, df=1 and Ms=185.88, F-value being 1.26 the same was not found to be significant. With regard to the two gender groups, the results indicated that they had SS=748.83, df=1, and Ms=748.83. The F-value was 5.07 which was found to be significant ($p < 0.05$).

The interaction between the two regional groups and two performance groups had SS=403.76, df=1, Ms=403.76 and F-value was 2.73 which was not found to be significant. The results regarding interaction between two regional groups and two gender groups had obtained SS= 810.55, df-1, Ms= 810.55 and F-value being 5.48 was found to be significant (p<0.05). The interaction between the performance groups and the gender groups demonstrated SS=798.24, df=1, Ms=798.24 and F - value was 5.40 which was significant at 0.05 level of significance.

The interaction between the three categories i.e. the region groups performance groups and the genders groups had indicated SS=224.42, df=1, Ms=224.42 and calculated F-value was 1.52 which was not significant.

TABLE – 1(b)

MEAN AND SD VALUES WITH REGARD TO REGION PERFORMANCE AND GENDER GROUPS ON THE VARIABLE STATE AND TRAIT ANXIETY

Values	Northern Region	Southern Region	Successful	Unsuccessful	Male	Female
Mean	45.07	43.59	44.72	43.70	42.60	46.00
SD	13.30	12.07	11.53	13.64	13.59	11.21

From the results in Table-1(b) it can seen that the athletes form Northern Region had the mean value of 45.07 and SD=13.30 whereas those from southern region had the mean value of 43.59 and SD= 12.07. The two performance groups had the mean values of 44.72 and 43.70, and SD= 11.53 and 13.64 respectively. The male athletes had the mean value of 42.60 and SD=13.59 as compared to female athletes who had the mean value of 46.00 and SD=11.21. These differences have been found to the significant [Table=1 (a)].

TABLE – 2(a)

ANOVA (2X2X2) RESULTS WITH REGARD TO NORTHERN AND SOUTHERN REGIONS, SUCCESSFUL AND UNSUCCESSFUL, MALE AND FEMALE ATHLETES AND THEIR INTERACTION EFFECTS ON THE VARIABLE SPORTS COMPETITION ANXIETY

Source of Variance	SS	DF	Ms	F- value
Northern & southern Region	182.99	1	182.99	14.24**
Successful and Unsuccessful	67.06	1	67.06	5.22*
Male & Female	116.75	1	116.75	9.09**
Region x Performance	51.78	1	51.78	4.03*
Region x Gender	3.17	1	3.17	0.25
Performance x Gender	31.60	1	31.60	2.46

Region x performance x gender	21.69	1	21.69	1.69
Within (Residual)	**3572.36**	**278**	**12.85**	

* p<0.05

**p<0.01

As is evident form the results in Table 2(a) on the variable *Sports Competition Anxiety,* the athletes form two regions i.e. northern and southern region had exhibited SS=182.99, df=1 and Ms=182.99. The F-value was found to be 14.24 which was significant (p<0.01). Regarding the successful and unsuccessful groups, the results demonstrated SS=67.07, df=1, Ms=67.06 and F-value=5.22 which was found to be significant (p<0.05). The two gender groups i.e. the male and female athletes had SS=116.75 df=1 and Ms=116.75. The F-value was 9.09 and the same was found to be significant (p<0.01).

The results regarding the interaction between the northern and southern region, and successful and unsuccessful groups produced significant interaction effects with SS=51.78, df=1 Ms=51.78, F=4.03 (p<0.05). Interaction effects between the two regi onal groups (i.e. northern and southern region) and the two gender groups (i.e. male and female) exhibited SS=3.17, df=1, Ms=3.17, and F=0.25 which was not significant. With regard to the interaction effects produced by performance groups x gender Groups demon strated SS=31.60, df=1, Ms=31.60 and F-value=2.46 which fell short of 0.05 level of significance.

The three way interaction between region x performance x gender indicated SS=21.69, df=1, Ms=21.69 and F=1.69 which was not found to be significant.

TABLE – 2 (b)

MEAN AND SD VALUES WITH REGARD TO REGION PERFORMANCE AND GENDER GROUPS ON THE VARIABLE SPORTS COMPETITION ANXIETY

Values	Northern Region	Southern Region	Successful	Unsuccessful	Male	Female
Mean	20.78	19.43	19.53	20.49	19.57	20.49
SD	2.98	4.17	3.05	4.33	3.00	4.42

As shown in table-2 (b), the northern and southern region athletes had the mean scores of 20.78 and 19.43 and SD=2.98 and 4.17 respectively. These differences have been found to be significant [Table 2(a). These values for the successful and unsuccessful athletes were 19.53 and 20.49, and SD=3.05 and 4.33 respectively. The differences have been found significant [Table-2(a)]. Regarding the two gender groups the mean and SD values for male athletes were 19.57 and 3.00 whereas for the female group the same were 20.49 and 4.42 respectively. These difference have been found to be significant [Table 2 (a)]

DISCUSSION

Regarding the variable State and Trait Anxiety in Table-1(a) demonstrated there were no significant differences between the athletes from two regions i.e. Northern and Southern regions. The athletes from Northern region had obtained the mean va lue of 45.07 as compared to 43.59 by the Southern Region athletes (Table-1b), indicating that the former group had a little higher level of anxiety (higher

scores indicated higher levels of anxiety). As per the classification provided in the manual, both the groups, however, fell in category of "extremely high anxiety".

The two performance groups i.e. successful and unsuccessful athletes also did not differ significantly from each other. Successful athletes had the mean score of 44.72 whereas the unsuccessful had 43.70 as mean score. This revealed that both these groups had almost same level of anxiety. As per the classification in the test manual, both the groups feil in "extremely high anxie ty" category. These results support the findings of Bhushan (2002) and Saini (1993).

The differences between the two gender groups i.e. the male and female athletes were found to be significant (p<0.05, Table 1 - a). Female athletes were found to have significantly higher level of anxiety as compared to the male athletes. They had obtained the mean score of 46.00 whereas the male athletes had the mean value of 42.60. Both the gender groups, however, fell in 'extremely high anxiety' classification as per the instructions in the test manual. These results support those of Borse and Patil (2000).

The interaction between the region and performance was not found to be significant indicating that the interaction did not produce main effect on the dependent variable. However, interactions between region and gender as well as between performance and gender were found to be significant (p<0.05 in both these case, Table 1-a). This demonstrated that all these factors interacted to influence the dependent variable. At the same time the 2x2x2 interaction (region x performance x gender) results were not found to be significant.

The results in Table-2(a) regarding the variable Sports Competitive Anxiety revealed that the athletes from the two regions i.e. northern and southern regions, differed significantly from each other (p<O.01, F-value being 14.24). The athletes from northern region having higher mean *value (20.78)* were found to *have* significantly higher *level* of sports competitive anxiety as compared to the athletes from southern region who had comparatively lower mean score of 19.43 (Table-2b). As per the classification in the test manual, the former group fell in *"above average* anxiety" *level* whereas the later group i.e. the athletes from southern region fell in 'optimum anxiety' *level.*

The successful and unsuccessful athletes also differed from each other significantly on sports *competitive* anxiety (p<0.05, Table 2-a). The unsuccessful athletes were found to *have* higher mean score (20.49) as compared to successful athletes (19.53) which indicated that the former group had higher *level* of sports *competitive* anxiety (as per the test manual, high scores indicated higher level of anxiety). Both the groups, however, fell in "optimum anxiety level".

Regarding the male and female athletes on this variable, the differences were found to be significant (p<0.01, Table 2-a). The female athletes having higher mean *value* of 20.49 were found to *have* significantly higher level of sports *competitive* anxiety as compared to the male athletes who had the *value* of 19.57. Both the gender groups fell in "optimum anxiety" level as per the classification in the test manual. These findings support those of Singh (1988).

The results regarding the interaction between region and gender, performance and gender, and three way interactions between region, gender and performance were not found to be significant. *However,* the results regarding the interaction between region and performance were found to be significant (p<0.05) indicating that the same influenced the dependent variable.

CONCLUSIONS

DIFFERENCES BETWEEN ATHLETES FROM NORTHERN AND SOUTHERN REGION

The athletes from two regions did not demonstrate any significant differences between these on the variable State-Trait Anxiety. The Athletes from the Northern region obtained significantly higher scores as compared to the southern region athletes (p<O.0 1) on the variable sports competition anxiety which demonstrated that the athletes from northern region experienced higher sports competition anxiety.

DIFFERENCES BETWEEN THE SUCCESSFUL AND UNSUCCESSFUL ATHLETES

There were no significant differences between the two performance groups i.e. successful and unsuccessful athletes with regard to the variable State-Trait Anxiety. The results with regard to the sports competition Anxiety demonstrated significant differences between the successful and unsuccessful athletes.

DIFFERENCES BETWEEN MALE AND FEMALE ATHLETES

The female athletes were found to differ significantly from male counterparts on the variable State-Trait anxiety as well as with regard to sports competition anxiety.

INTERACTION BETWEEN REGIONS, PERFORMANCE AND GENDER

The region x performance was not found to be significant on State-Trait anxiety whereas the same has been found to be significant with regard to sports competition anxiety. Region x gender interaction effect was found to be significant on stat e-trait anxiety but the same was not significant with regard to sports competition anxiety. For the performance x gender interaction too, significant results were obtained with regard to state-trait anxiety only. The three way interaction i.e. region x performance x gender was not found to be significant with regard to both the state-trait anxiety and sports competition anxiety as well.

In the present study, all the groups i.e. Regional, Performance and gender groups were found to fall in "extremely high anxiety" category of state trait anxiety, and with regard to sports competition anxiety all the group of athletes [except northern region] fall in „optimum anxiety" level. But the northern region, which fall in „above average anxiety" level.

These were alarming situations and immediate remedial measures are needed to be taken t o control, manage and regulate their anxiety levels to desirable levels by adopting suitable psycho- regulatory techniques. Coaches and other officials concerned with athletes need to monitor and adopt serious measures for anxiety regulation for takes optimum possible performance of athletes.

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