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RELATIONSHIP OF RUNNERS, JUMPERS AND THROWERS ON SOMATOTYPE COMPONENTS TO SELECTED PSYCHOLOGICAL VARIABLES

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ABSTRACT

The purpose of the study was to find the relationship of somatotype components of the selected psychological variables of runners, jumpers and throwers. One hundred and fifty male athletes in the age group of 17-25 with representation at state, national and inter-university level were selected for the present study. The selected subjects were the representative of different parts of the country and belonged to different socio-economic strata. All subjects possessed well developed physique because of participation in different athletic meet in a number of years. Following variables were selectee Somatotype: Endomorph, Mesomorph and Ectomorph. Psychological variables: Achievement motivation, sports competition anxiety and sports aggression. Achievement motivation was measured by sports

achievement motivation test (SAMT). Sports competition anxiety was measured by sports competition anxiety test (SCAT). The aggression score of the subjects was obtained by using sports aggression inventory developed by Anand Kumar and Prem Shankar Shukla. In determining the body builds classification or somatotype, the individual is scaled from 1-7 in each component. The somatotype is thus given in the three number sequences in which the first number represents the endomorph, the second number mesomorph and the third is ectomorph, and extreme endomorph is classified as a 7-1-1; an extreme mesomorph is a 1-7-1; an extreme ectomorph is a 1-1-7. Relationship between psychological and somatotype was performed by using Pearson produce moment correlation. To compare the runners, jumpers and throwers in relation to body type, analysis of variance was used at 0.05 level of confidence. The above mentioned statistical techniques were performed using SPSS version 11.5. Findings concluded that mesomorphic body type has an important role in the performance of runners, jumpers and throwers. Moreover, depending on the nature of the events the body type differs in case of runners, jumpers and throwes.

KEYWORDS: Somatotype, Anxiety, Motivation, Aggression, Runners, Jumpers and Throwers.

INTRODUCTION

Sports and physical activity has been considered an integral part of human life since its inception. It is universally accepted that sports and games fulfil the requirements of human activities. A revolutionary achievement of electronic media has made it all the more important not only in the lives of participants but also among the millions of



spectators, viewers and listeners. A sport is now popularly conceived as both socially and personally beneficial activity. A sport is psycho-social activity. It has both psychological and social dimensions besides physical, physiological and technical aspects. Man's interest in sports is found among all the society of the world. Most of the nations share a common interest in sport competition, especially during Olympic Games, where people from all nations focus their attention on the drama of competition. But the quality of participation of the athletes and sportsmen is determined by their psychological factors. In the modern era of competition, psychological preparation of team is an important as teaching the different skills of a game on the scientific lines. The team are motivated not only to play the game but also to win the games. It is not only the proficiency in the skill which brings victory.

In the modern era of competition, psychological preparation of a team is an important as teaching the different skills of a game on the scientific lines. The teams are motivated not only to play the game but also to win the games. It is not only the proficiency in the skill which brings victory. It is expressed in three ratings as per health and carter method of somatotype that describes the body as a whole and is rating of what the body looks like descriptive statistics was applies to characterize the somatotype.

METHODOLOGY:-

The purpose of the study was to find the relationship of somatotype components of the selected psychological variables of runners, jumpers and throwers. One hundred and fifty male athletes in the age group of 17-25 with representation at state, national and inter-university level were selected for the present study. The selected subjects were the representative of different parts of the country and belonged to different socio-economic strata.

All subjects possessed well developed physique because of participation in different athletic meet in a number of years. Following variables were selected Somatotype: Endomorph, Mesomorph, and Ectomorph. Psychological variables: Achievement motivation, sports competition anxiety and sports aggression. Achievement motivation was measured by sports achievement motivation test (SAMT). Sports competition anxiety was measured by sports competition anxiety test (SCAT). The aggression score of the subjects was obtained by using sports aggression inventory developed by Anand Kumar and Prem Shankar Shukla. In determining the body builds classification or somatotype, the individual is scaled from 1-7 in each component. The somatotype is thus given in the three number sequences in which the first number represents the endomorph, the second number mesomorph and the third is ectomorph, an extreme endomorph is classified as 7-1-1; an extreme mesomorph is a 1-7-1; an extreme ectomorph is a 1-1-7.

FINDINGS:-

Descriptive statistics was applied to characterize the somatotype and psychological variables of runners, jumpers and throwers. To determine the relationship of somatotype and selected psychological variables of runners, jumpers and throwers the data collected was analyzed using the correlation matrix (Pearson Product Moment Correlation).

Secondly in order to compare the mean performance of psychological variables and somatotype among runners, jumpers and throwers, analysis of variance (ANOVA) was applies. The level of significance was set at .05 level.

TABLE-1
MEAN AND STANDARD DEVIATION OF RUNNERS, JUMPERS AND THROWERS (N=50)

Variables		Mean	Standard Deviation
Endomorph	Runners	2.54	0.57
	Jumpers	2.74	0.69
	Throwers	4.85	0.84
	Total	3.38	1.26
Mesomorph	Runners	4.53	0.74
	Jumpers	4.48	0.80
	Throwers	3.35	0.62
	Total	4.12	0.90
Ectomorph	Runners	3.09	0.46
	Jumpers	3.11	0.75
	Throwers	2.99	0.47
	Total	3.06	0.57
Sports Competition Anxiety Test	Runners	17.9	1.39
	Jumpers	18.9	2.44
	Throwers	20	1.8
	Total	18.9	2.1
Sports Aggression	Runners	19.2	2
	Jumpers	20.2	1.97
	Throwers	17.6	2.31
	Total	19	2.35
Sports Achievement Motivation	Runners	29.4	3.48
	Jumpers	27	3.71
	Throwers	26	3.4
	Total	27.5	3.8

TABLE-2
RELATIONSHIP BETWEEN SOMATOTYPE AND ANXIETY IN RELATION TO RUNNERS (N=50)

Variables Correlated		Co-efficient Correlation
Anxiety	Endomorph	0.550*
	Mesomorph	0.523*
	Ectomorph	0.902*

TABLE-3
RELATIONSHIP BETWEEN SOMATOTYPE AND AGGRESSION IN RELATION TO RUNNERS (N=50)

Variables Correlated		Co-efficient Correlation
Aggression	Endomorph	0.333*
	Mesomorph	0.487*
	Ectomorph	0.746*

TABLE-4
RELATIONSHIP BETWEEN SOMATOTYPE AND MOTIVATION IN RELATION TO RUNNERS (N=50)

Variables Correlated		Co-efficient Correlation
Motivation	Endomorph	0.568*
	Mesomorph	0.953*
	Ectomorph	0.441*

TABLE-5
RELATIONSHIP BETWEEN SOMATOTYPE AND ANXIETY IN RELATION TO JUMPERS (N=50)

Variables Correlated		Co-efficient Correlation
Anxiety	Endomorph	- 0.131
	Mesomorph	0.270
	Ectomorph	0.887*

TABLE-6
RELATIONSHIP BETWEEN SOMATOTYPE AND AGGRESSION IN RELATION TO JUMPERS (N=50)

Variables Correlated		Co-efficient Correlation
Aggression	Endomorph	0.190
	Mesomorph	0.719*
	Ectomorph	0.395*

TABLE-7
RELATIONSHIP BETWEEN SOMATOTYPE AND MOTIVATION IN RELATION TO JUMPERS (N=50)

Variables Correlated		Co-efficient Correlation
Motivation	Endomorph	0.128
	Mesomorph	0.687*
	Ectomorph	0.311*

TABLE-8
RELATIONSHIP BETWEEN SOMATOTYPE AND ANXIETY IN RELATION TO THROWERS (N=50)

Variables Correlated		Co-efficient Correlation
Anxiety	Endomorph	-0.054
	Mesomorph	0.200
	Ectomorph	0.898

TABLE-9
RELATIONSHIP BETWEEN SOMATOTYPE AND AGGRESSION IN RELATION TO THROWERS (N=50)

Variables Correlated		Co-efficient Correlation
Aggression	Endomorph	0.056
	Mesomorph	0.428*
	Ectomorph	0.346*

TABLE-10
RELATIONSHIP BETWEEN SOMATOTYPE AND MOTIVATION IN RELATION TO THROWERS (N=50)

Variables Correlated		Co-efficient Correlation
Motivation	Endomorph	- 0.185
	Mesomorph	0.844*
	Ectomorph	0.397*

DISCUSSION OF FINDINGS:-

The mean and standard deviation of runners, jumpers and throwers in relation to Endomorph: Runners 2.54 ± 0.57 , Jumpers 2.74 ± 0.69 , Throwers 4.85 ± 0.84 , Total 3.38 ± 1.26 . Mesomorph: Runners 4.53 ± 0.74 , Jumpers 4.48 ± 0.80 , Throwers 3.35 ± 0.62 , Total 4.12 ± 0.90 . Ectomorph: Runners 3.09 ± 0.46 , Jumpers 3.11 ± 0.75 , Throwers 2.99 ± 0.47 , Total 3.06 ± 0.57 . Sports Competition Anxiety Test: Runners 17.9 ± 1.39 , Jumpers 18.9 ± 2.44 , Throwers 20 ± 1.80 , Total 18.9 ± 2.1 . Sports Aggression: Runners 19.2 ± 2 , Jumpers 20.2 ± 1.97 , Throwers 17.6 ± 2.31 , Total 19 ± 2.35 . Sports Achievement Motivation: Runners 29.4 ± 3.48 , Jumpers 27 ± 3.71 , Throwers 26 ± 3.4 , Total 27.5 ± 3.8 .

Significant relationship was found in case of anxiety and endomorph, anxiety and mesomorph, anxiety and ectomorph, aggression and endomorph, aggression and mesomorph, aggression and ectomorph, motivation and endomorph, motivation and mesomorph in case of runners. Thus it is concluded that mesomorphic body type athlete had an important role for performance of runners.

Significant relationship was found in case of anxiety and ectomorph, aggression and mesomorph, aggression and ectomorph, motivation and mesomorph, motivation and ectomorph, in case of jumpers. Thus it is concluded that for jumpers also mesomorph had a positive influence on motivation and

aggression.

Significant relationship was found in case of anxiety and ectomorph, aggression and mesomorph, aggression and ectomorph, motivation and mesomorph, motivation and ectomorph of throwers. Thus it is concluded that mesomorph body type has direct influence on all the characteristics required for throwers (i.e motivation and aggression).

By the above findings it is finally concluded that mesomorphic body type has an important role in the performance of runners, jumpers and throwers. Moreover, depending on the nature of the events the body type differ in case of runners, jumpers and throwers.

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