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Analytical study of psychological parameters: locus of control, communal tension and stress of cyclists in competitive situations

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Abstract

The aim of the study to find out the Psychological parameters: locus of control, communal tension and stress of cyclists in competitive situations. In the present research, the sample included 184 cyclists (96 males (48 and 48 divided into two levels) & 88 females (44 and 44 divided into two levels)) female cyclists of inter university and national level, of age group 18–25 years. This sample of cyclists was drawn randomly from various educational and sports institutes, which included colleges, universities, sports academies and organizations. Design of the Study: The investigator framed two levels for each variable-Locus of Control (Internally Controlled and Externally Controlled), Communal Tension (High Tension and Low Tension) and Gender (Males and Females). For the purpose of data collection three questionnaires were used: Locus of Control Scale 'LCS-HI' (Hindi version by Dr. N. Hasnain & Dr. D. D. Joshi, 1985), Comprehensive Scale of Tension (Rajeevlochan Bhardwaj, 1985) and Stress Scale 'SS-LVNS' (Hindi version by Dr. Vijaya Lakshmi & Dr. Shruti Narain, 2014). After collecting the data a t test was applied and the level of significance set at 0.05. The outcome of the study shows that, significant differences were observed in Locus of Control & Communal Tension and insignificance differences were found for their Stress parameter in Male cyclists. The results powerfully prove that, significant differences were observed in Locus of Control & Communal Tension and Stress parameter in female cyclists

Keywords: Locus of control, communal tension and stress

Introduction

The life of sportspersons has always proved appealing to the researchers, as they attempt to study a perfect athlete's underlying constituents, such as role of his physical ability, personality, motivation & emotions, his cognitive processes and stress management strategies in various competitive situations emerging on the frequent basis, in the field of sports. In this process, it has been found that emotions are fundamental to an ambitious athlete and strong emotional responses are the by-product of sports, having considerable effect on participants as well as viewers. An effective regulation of the emotions on the part of athletes is important, so that they can attain and sustain a stable emotional state to perform and avail their potential to the maximum.

Locus of Control: Psychologist Julian Rotter (1954) [6] believed that behavior is determined by rewards and punishments. It is the outcome of an individual's actions that affects the beliefs regarding the causal factors of such actions. These beliefs about the causes of one's actions further influence one's behavior and attitudes. Rotter stated that 'locus of control is a continuum', with internal locus of control at one end and external locus of control at the other. The construct of locus of control reflects whether an individual perceives the cause of behavior to be within his/her personal control. It means the extent to which individuals believe that they can control events and causes of their actions. It may be defined as the perceptions one holds regarding personal responsibility for success or failure (Wood & Olivier, 2004) [8]. Locus of control refers to a predisposition in the perception of what causes reinforcement (Kormanik & Rocco, 2009) [4].

The extent to which one feels that he can exercise control over situations affecting his life,

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explains the concept of locus of control. According to the psychologist Zimbardo (1985) [9], "A locus of control orientation is a belief about whether the outcomes of our actions are contingent on what we do (internal control orientation) or on events outside our personal control (external control orientation)".

During challenging situations of life, if an individual thinks that he has control over the outcomes, he has what psychologists consider an internal locus of control. But if an individual believes that he cannot exercise any control over what is happening and that the outcome would entirely be determined by the outside forces or external variables, then he has what is referred to an external locus of control. Rotter also affirmed that it is impossible for anyone to have a 100 percent external or internal locus of control. Instead, majority of individuals tend to lie somewhere between the two extremes on the locus of control continuum.

Communal Tension: Basic social, educational and cultural values form the building blocks of human activity and sports. At times, violence has been observed in sports across the globe, and causes of which are generally attributed to racial, cultural or religious sentiments. In India, communal hatred and tension have been considered the crucial factors contributing to the history of violence in sports. Prejudice and discrimination on the basis of caste have been rising alongside the acquisition of negative attitudes and stereotypes during the course of socialization. Rarely based on our first hand experiences, these powerful attitudes direct our behavior and are rooted in false information, personal impressions and hearsay (Bohra, 1979) [2].

There are numerous reasons that have been stated for the brewing communal tension; Misunderstanding of feelings, selfish demeanor, intense feelings for regionalism and religious fundamentalism are some of the pivotal factors leading to India's current disastrous scenario. These factors, irrespective of operating individually or collectively, can lead to disintegration midst the natives of a nation. Such deviant communal feelings also hinder progress of a nation besides posing threat to its security and integration.

Communal tension can be tackled by curbing hostile feelings and cultivating friendly relations with people of other communities and religions. Inducing the feelings of tolerance towards others and rising above one's selfish interests can also play a beneficial role in boosting the economic prosperity of a nation. In sports, it can be managed effectively by fostering 'we-feelings' or group cohesion among the participants.

Stress: In consideration to sports, *Stress* besides emotions, has proved to be an important factor when a successful performance is desired on the part of an athlete. Stress is an inevitable part of an athlete's life that is often characterized by the feelings of worry and overload. The problem arises when athletes cannot handle this overload that occurs in the form of physical and emotional trauma, and is generated by the taxing demands on their energy and emotions. Stress, at times, motivates an athlete to finish a task and perform effectively. But stress can be harmful when the athlete becomes over-stressed as this affects his ability which ultimately interferes with his performance on the field.

Stress is the state created by the circumstances that place physical or psychological demands on an individual. Selye defined stress as the "nonspecific response of the body to any demand made upon it" (Selye, 1983) [7]. His stress model

'General Adaptation Syndrome' thoroughly explains the stress response and problems caused by chronic exposure to stress. It states that an event that threatens an organism's well-being (a stressor) leads to a three-stage bodily response: Stage 1-Alarm, Stage 2-Resistance and Stage 3-Exhaustion.

Statement of the Problem

The problem is entitled as "Analytical study of psychological parameters: locus of control, communal tension and stress of cyclists in competitive situations".

Methodology and Procedure

Selection of Subjects

In the present research, the sample included 184 cyclists (96 males & 88 females) of inter university and national level, of age group 18-25 years. This sample of cyclists was drawn randomly from various educational and sports institutes, which included colleges, universities, sports academies and organizations.

Design of the Study

The present study is conducted to acknowledge the stated objectives of the study, which were to see the contribution of Locus of Control, Communal tension and Gender in Stress. The investigator framed two levels for each variable-Locus of Control (Internally Controlled and Externally Controlled), Communal Tension (High Tension and Low Tension) and Gender (Males and Females).

Procedure

Ninety-six male (48 and 48 divided into two levels) and eighty-eight (44 and 44 divided into two levels) female cyclists (18-25 years) were tested on various psychological parameters of cyclists in competitive situations. The tests were administered to the subjects, a day before the competition and the respective scores were listed.

Administration of Tests

Administration of the tests was carried out a day before inter university and national competitions. The subjects were made cognizant about the significance of the study, prior to the administration of the tests. They were briefed and asked to respond as per the instructions of the investigator. It was ensured that all the items of the tests were answered by the subjects. The confidentiality of the subjects and their scores was also maintained.

Stress Scale 'SS-LVNS' (Hindi version by Dr. Vijaya Lakshmi & Dr. Shruti Narain, 2014) [5] was administered to obtain scores on dimensions of pressure, physical stress, anxiety and frustration. Locus of Control Scale 'LCS-HJ' (Hindi version by Dr. N. Hasnian & Dr. DD. Joshi, 1992) [3] was used to measure the internal and external locus of control of the cyclists. The Comprehensive scale of Tension by Rajeevlochan Bhardwaj (1985) [1] was used to measure the cultural variable, i.e. the communal tension among the cyclists.

Test Materials

Taking into consideration the objectives of the study, following tests were chosen for administration and data collection.

Locus of Control Scale 'LCS-HJ' (Hindi version by Dr. N. Hasnian & Dr. D. D. Joshi, 1985)

To determine the locus of control in cyclists, the Locus of

Control Scale 'LCS-H' constructed by Dr. N. Hasnian & Dr. D. D. Joshi (1985) was selected. It is a 3-point scale that consists of 36 items, out of which 16 items are 'positive' and 20 are 'negative'. The subjects have to respond in terms of 'Always', 'Sometimes' and 'Never'. It is a self-administering test with simple and self-explanatory instructions printed on the cover page of the test booklet. Test can be administered either individually or in groups.

Reliability of LCS was measured with Spearman Brown Prophecy Method and Test-Retest Method and was found to be 0.55 and 0.76 respectively. A three point scale was used to identify internal locus of control and external locus of control. Scores of 2, 1 and 0 were assigned to 'always', 'sometimes' and 'never' responses of positive items and 0, 1 and 2 scores were assigned for responses of negative items. Since, the positive items are related with internal locus of control, the higher the score on the scale, the more internally oriented the individual will be. The highest score on the scale is 72 and the lowest is 0.

Comprehensive Scale of Tension (Rajeevlochan Bhardwaj, 1985) [1]

The present Comprehensive Scale of Tension (Rajeevlochan Bhardwaj, 1985) has been constructed with a view to measure the different types of tension, viz. communal tension, caste tension, religious tension, cultural tension, regional tension and language tension. It is a self-administering scale. The scale has 32 items for 10 areas viz., religiosity-5 items; economic-5 items; education-5 items; incidence occurrence-4 items; politics-3 items; social distance-3 items; dominance-3 items; nationality-2 items; linguistic 1 item; and sport-1 item. Each item of the scale has 5 alternative answers with clear instructions at the front of the page.

The test is highly reliable and valid for measuring the tension among people. It possesses split-half reliability of 81 through Spearman-Brown Formula and 88 by Guttman Formula. The content validity of the present scale is very high and the theoretical validity is 89. The scoring of the test is very easy and quantitative type. Each item of the scale possesses five alternative answers. All subjects have to tick on any one alternative answer out of five of each item. Five alternatives starting from top to bottom are scored 5, 4, 3, 2 and 1 respectively. The addition of all the achieved scores serves the purpose of the Tension score.

Stress Scale 'SS-LVNS' (Hindi version by Dr. Vijaya Lakshmi & Dr. Shruti Narain, 2014) [5]

Addressing the need to measure exclusive stress dimensions, Stress Scale 'SS-LVNS' (Hindi version by Dr. Vijaya Lakshmi & Dr. Shruti Narain, 2014) [5] was selected. The dimensions of the scale are as follows:

- Pressure, involves expectations or demands placed on individuals to behave in a particular way, across various situations viz., doing well in academics, sports, approval of parents, peers etc.
- Physical stress, often reflected in headaches, fatigue, muscle tension and elevated heart rate etc., is the stress endured over a long period of time leading to diminished health of the individual.
- Anxiety, often experienced as an unpleasant emotional state accompanied by physiological arousal and cognitive elements as apprehension, guilt along with the sense of impending disaster.
- Frustration, arising in situations, where the pursuit of the goal is obstructed.

The scale has four stress dimensions and consists of 40 items.

Responses of each item are taken in either 'Yes' or 'No'. This scale can be used on adolescents and adults within the age range of 12-24 years and can be administered either by self or by the investigator and may be used in groups as well as individual conditions. There is no fixed time limit as such. However, it generally takes about 10-15 minutes for its completion. Test-retest Reliability of the Stress Scale 'SS-LVNS' (Hindi version is 82.

The answers of those items that tally with scoring key are given a score of +1 and if they do not, then a score of 0 is given.; higher the score, greater is the level of stress. The subjects can be classified into three categories viz., High, Moderate and Low levels of Stress on the basis of the raw scores for each dimension separately and also for a total score on the stress scale.

Statistical Techniques

After collecting the relevant data t test was applied. The level of significance set at 0.05.

Results

Table 1: Comparison of Means, Standard Deviations and t-value of Locus of Control, Communal Tension and Stress in Male cyclists

Variables	Levels	N	Mean	SD	t-value
Locus of Control	External	48	91.49	6.59	14.03*
	Internal	48	76.33	3.55	
Communal Tension	High	48	86.75	9.97	3.14*
	Low	48	81.07	7.59	
Stress	High	48	83.61	5.13	0.31
	Low	48	84.21	12.12	

* $T'_{0.05(94)} = 1.984$

Comparison of Means, Standard Deviations and t-value of Locus of Control, Communal Tension and Stress in Male cyclists has been shown in Table 1. For comparisons two levels of each variable were also taken into consideration.

The mean and standard deviation with regard to Locus of Control in External levels players is 91.49 and 6.59 where as in case of Locus of Control in Internal levels of players is 76.33 and 3.55 respectively. The calculated t-value (14.03) which is more than the tabulated t-value at 0.05 levels. So, it indicates that there is significant difference. The mean and standard deviation with regard to Communal Tension in high levels players is 86.75 and 9.97 where as in case of Communal Tension in low levels of players is 81.07 and 7.59 respectively. The calculated t-value (3.14) which is more than the tabulated t-value at 0.05 levels. So, it indicates that there is significant differences were found.

The mean and standard deviation with regard to Stress in high levels players is 83.61 and 5.13 where as in case of Stress in low levels of players is 84.21 and 12.12 respectively. The calculated t-value (0.31) which is less than the tabulated t-value at 0.05 levels. So, it indicates that there is insignificant difference.

Table 2: Comparison of Means, Standard Deviations and t-value of Locus of Control, Communal Tension and Stress in Female cyclists

Variables	Levels	N	Mean	SD	t-value
Locus of Control	External	44	51.01	7.62	6.06*
	Internal	44	43.75	2.22	
Communal Tension	High	44	49.71	8.13	3.47*
	Low	44	45.05	3.60	
Stress	High	44	49.48	6.77	3.09*
	Low	44	45.28	5.93	

* $T'_{0.05(86)} = 1.987$

Table 4.9 brings to light the comparison of Means, Standard Deviations and F-ratios of Performance in relation to Locus of Control, Communal Tension and Stress in Female cyclists. For comparisons two levels of each variable were also taken into consideration.

The mean and standard deviation with regard to Locus of Control in External levels players is 951.01 and 7.62 where as in case of Locus of Control in Internal levels of players is 43.75 and 2.22 respectively. The calculated t-value (6.06) which is more than the tabulated t-value at 0.05 levels. So, it indicates that there is significant difference. The mean and standard deviation with regard to Communal Tension in high levels players is 49.71 and 8.13 where as in case of Communal Tension in low levels of players is 45.05 and 3.60 respectively. The calculated t-value (3.47) which is more than the tabulated t-value at 0.05 levels. So, it indicates that there is significant difference.

The mean and standard deviation with regard to Stress in high levels players is 49.48 and 6.77 where as in case of Stress in low levels of players is 45.28 and 5.93 respectively. The calculated t-value (3.09) which is more than the tabulated t-value at 0.05 levels. So, it indicates that there is significant differences were found.

Conclusions

- 1) The results strongly confirm that, significant differences were observed in Locus of Control & Communal Tension and insignificant differences were found for their Stress parameter in Male cyclists.
- 2) The results powerfully prove that, significant differences were observed in Locus of Control & Communal Tension and Stress parameter in female cyclists.

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