Relationship of psychological variables of female hockey players of Gwalior academy of Madhya Pradesh

Nidhi Rai and Dr. VF Peter

Abstract
The purpose of this study was to describe and relationship the psychological variables (Achievement Motivation, Sports competition Anxiety, Aggression, Self-Concept) of female junior national hockey players of academy, Gwalior. The analysis of facts accumulated on the overall number of subjects for this study, (N=50) female players of junior national level, from female hockey academy Gwalior. The training age of the subjects was of minimum 3 years. Subjects will provide written, voluntary, informed consent prior to participation and all players were regular and accustomed to high levels of exertion. Psychological variable: Anxiety, Aggression, Self-concept, Achievement motivation data collection through authentic questioner for selected psychological variables. The statistical analysis of data collected female hockey players of junior national level, from female hockey academy Descriptive Statistics was used to mean score, and Pearson Correlation was used, to relationship between psychological variables and hockey performance. The data analyzing tools SPSS- 21 software was used. The level of significance was set at 0.05 level. The Conclusions for this study according to objectives of the study the following conclusions were drawn: the first conclusion there was significance Mean score of psychological variables (Achievement Motivation, Sports competition Anxiety, Aggression, Self-Concept) for the female junior nation hockey players of hockey academy, Gwalior. The second conclusion for this study the strongly indicate that there were significant relationship in relation to the selected psychological variables, total eight variables Achievement Motivation, Sports competition Anxiety, Aggression, Self-Concept with hockey performance, for the female junior nation hockey players of hockey academy, Gwalior.

Keywords: Hockey achievement motivation, sports competition anxiety, aggression, self-concept academy, Gwalior, etc.

Introduction
The evolution of Identification in sports activities is of quintessential significance to the search for excellence in top-class sports activities and the environment-friendly teaching of sports activities programmers. However, present-day TID fashions conflict with low predictive electricity prompted by, amongst different things, the absence of truly remarkable relationships between the residences of younger athletes and their eventual success on the perfect degrees of opposition (Pete Chapman, 2000). There are many stipulations crucial for success in the present-day sport. One of these is an inherent brain or aptitude. Early identification of Genius is one of the most necessary worries in modern-day recreation (Bompa, 1985; Bompa, 1990; Harre, 1982). The simple premise underlying Genius is that the improvement of the youthful athlete can be first-rate served if the athlete trains in a game of self-discipline for which he/she is fine suitable (Harre, 1982). Talent has some homes that are genetically transmitted and, therefore, innate. Nevertheless, Genius is no longer continually evident at an early age however skilled humans can also be in a position to discover its existence through the usage of sure markers. These early warning signs of intelligence may additionally furnish a foundation for predicting these folks who have a lifelike hazard of succeeding at a later stage. Very few men and women are proficient in any single domain; indeed, if all youth had been equally gifted, there would be no potential of discriminating or explaining differential success. Furthermore, intelligence is precise to that specific domain.
The complicated nature of intelligence is highlighted through these Principles. It is now not surprising, that there is no consensus, nationally or internationally, involving the idea and exercise of Genius identification (Gagne’s 2002).

**Hockey**

Hockey is a technical recreation in which overall performance is primarily based on capabilities and strategies in which unique difficult factors are concerned such as excessive degree of bodily and psychological abilities. Sports psychology helps a lot in assessing the overall performance of hockey players. Though bodily and physiological variables play an essential position in improving hockey overall performance however ultimately it is the psychological element that decides the triumphing and dropping off the team. Hockey is a skilful recreation and because strategies and methods are modified very often and hence it will become a thought game. Presently coaches and bodily educators and involved in the psychological and sociological factor of sports activities instead of relying on only physiological health and capabilities of a range of activities. They realized that the physiological and sociological traits of the participant make contributions greater closer to their success than mere bodily fitness. Serves to realign the lift.

**Objectives of the study**

1. To describe the psychological variables (Achievement Motivation, Sports competition Anxiety, Aggression, Self-Concept) of female junior national hockey players of academy, Gwalior.

**Methodology**

The analysis of facts accumulated on the overall number of subjects for this study, (N=50) female players of junior national level, from female hockey academy Gwalior. The training age of the subjects was of minimum 3 years. Subjects will provide written, voluntary, informed consent prior to participation and all players were regular and accustomed to high levels of exertion. Psychological variable: Anxiety, Aggression, Self-concept, Achievement motivation the statistical analysis of data collected female hockey players of junior national level, from female hockey academy Descriptive Statistics was used to mean score, and Pearson Correlation was used, to find out the coefficient of correlation between variables were applied. The data analyzing tools SPSS- 21 software was used. The level of significance was set at 0.05 level.

**Criterion measure**

**Description of Questionnaires**

**Sports Competition Anxiety Test (SCAT)**

The questionnaire was used for this study Sports Competition Anxiety developed by Rainer Marten.

**Sports Competition Anxiety Test (SCAT): Reliability value has been found to be 0.85**

**Purpose:** SCAT questionnaire was used to assess the anxiety level among the subjects.

**Procedure**

The SCAT has 15 items out of which five are spurious questions, which are added to questionnaire to diminish response of biasness towards the actual test items. These five questions are not scored out. The subjects are instructed to respond to each item according to how they generally feel in completing sports situation.

**Every Statement has three possible responses i.e.**

- Hardly ever
- Sometimes
- Often

The SCAT has ten test items, which are taken for scoring purpose. These are 2, 3, 5, 6, 8, 9, 11, 12, 14 and 15. The remaining tests item i.e. spurious items, which were not taken 1, 4, 7,10 and 13.

While the subjects were responding to the questionnaire the researcher was present verifying that they were recording answer sequentially and explained the meaning of the words in case of doubts.

**Scoring:** The investigator evaluated the completed questionnaires. The items 2, 3, 5, 6, 8, 9, 11, 12, 14 and 15, awarded in such a way that they scored according to key.

- Score 1 for hardly ever
- Score 2 for Sometimes
- Score 3 for Often

**In the case of question numbers 6 and 11 the scoring was done in the following manner**

- Score 3 for hardly ever
- Score 2 for Sometimes
- Score 1 for Often

Spurious questions i.e. 1, 4, 7, 10 and 13 were not scored as suggested by Martens (1997)

Scores obtained by each subject on each statement were added up which represented one’s total score of competition Anxiety test. The higher score denote the higher anxiety and the lower score denote the lower anxiety. Scores ranged between 10 and 30.

**Achievement motivation**

The standard psychological tool devised by Kamalesh (Appendix A) consists of 20 incomplete statements, which can be completed by choosing either of the two proposed parts against each statement. The subjects were asked to tick (v) the second part in which their opinion fits in best with the first part. The investigator revalidated the inventory by Administering it on 120 subjects.

**Scoring**

1-a, 2-b, 3-a, 4-a, 5-b, 6-b, 7-b, 8-b, 9-a, 10-a, 11-a, 12-a, 13-a, 14-b, 15-b, 16-a, 17-a, 18-a, 19-b, 20-a. In the above, the numbers 1 to 20 denote the statement and letters (a) and (b) denote the correct answers.

Correct answers for each statement as indicated above were awarded “2” marks and incorrect answers for each statement were awarded “0” marks. The item, which was left unanswered, was not for consideration. The score was added and it was considered as individual score. The score range from 0 to 40.High score indicates high motivation in their achievements.

**Self-concept**

Swata Bodh Parkinson Swara (S.B.P.) is a forty eight item
questionnaire, yielding scores in eight different dimensions of self-concept and on the total. Thus, the present test provides eight separate measures of self-concept. The statements of the test were simple and declarative about self, seeking responses in “yes” or “no.” Responses were obtained on an answer sheet and the test booklet used again and again. There was no time limit for completing the test, but the respondent advises to complete the test as quickly as possible. Generally it took a respondent about 20 minutes to complete the test.

**Sports Aggression Inventory**

Sports Aggression Inventory constructed and standardized by Anand Kumar and Prem Shankar Shukla, was selected for this study. This questionnaire was distributed to the subjects after the Competition. The direction were read by the researcher. This inventory consist of 25 items, in which 13 items are keyed “Yes” and rest of 12 are keyed “No”. The statements which are keyed “Yes” are 1,4,5,6,9,12,14,16,18,21,22,24 and the statement which are keyed “No” are 2,3,7,8,10,11,13,15,17,19,20 and 23.

**Scoring**

For each correct items score was one, so the maximum score may be 25 and minimum score may be 0 (zero), score obtained by each subject on each statements was added up which represents one’s total score on aggression. The scores are taken separated by male and female athlete.

**Statistical technique**

In this study Descriptive statistics and Pearson correlation coefficient (Multiple correlations) for psychological variables (Achievement Motivation, Sports competition Anxiety, Aggression, Self-Concept) with hockey performance of female junior national hockey players of academy, Gwalior.

**Table 1**: Descriptive statistics of psychological variables for the talent identification of female junior national hockey players of hockey academy Gwalior

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Psychological Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Achievement Motivation</td>
<td>18.6</td>
<td>4.0</td>
<td>12.0</td>
<td>28.0</td>
</tr>
<tr>
<td>2</td>
<td>Sports Competition Anxiety</td>
<td>21.4</td>
<td>4.1</td>
<td>12.0</td>
<td>29.0</td>
</tr>
<tr>
<td>3</td>
<td>Aggression</td>
<td>19.4</td>
<td>4.2</td>
<td>12.0</td>
<td>29.0</td>
</tr>
<tr>
<td>4</td>
<td>Self-Concept</td>
<td>22.6</td>
<td>6.2</td>
<td>10.0</td>
<td>37.0</td>
</tr>
</tbody>
</table>

*S*Significant set at level.

Table-1 this study was carried results psychological variables for the talent identification of female hockey players of hockey academy Gwalior. The heights mean and standard deviations let me lean this up here standard deviations are extremely helpful in analysing the data sets, hence, that 16 table, group statistics, this table includes descriptive statistics mean and standard deviations for each psychological variables (Achievement Motivation, Sports competition Anxiety, Aggression, Self-Concept) of female junior national hockey players of academy, Gwalior. In detail table includes that the mean and standard deviations of psychological variables for the show Achievement Motivation (18.6±4.0), Sports competition Anxiety (21.4±4.1), Aggression (19.4±4.2), Self-Concept (22.6±6.2). And the relationship for the various psychological variables is presented in table 2.

**Table 2**: Relationship of selected anthropometric variables of female junior national hockey players of hockey academy, Gwalior

<table>
<thead>
<tr>
<th>S. N.</th>
<th>Psychological Variables</th>
<th>Hockey Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Performance</td>
<td>.367**</td>
</tr>
<tr>
<td>2</td>
<td>Achievement Motivation</td>
<td>.357</td>
</tr>
<tr>
<td>3</td>
<td>Anxiety</td>
<td>.332</td>
</tr>
<tr>
<td>4</td>
<td>Aggression</td>
<td>.328</td>
</tr>
<tr>
<td>5</td>
<td>Self-Concept</td>
<td>.328</td>
</tr>
</tbody>
</table>

Table 2. From the correlation results, we found that coefficient between hockey performances and selected psychological variables (Achievement Motivation, Sports competition Anxiety, Aggression, Self-Concept) Independent variables of female junior national hockey players of academy, Gwalior. Independent variables. The relationship of Achievement Motivation (-.367**), Sports competition Anxiety (-.357), Aggression (-.332), Self-Concept (-.328) tabulated value 0.273, (df is 49, 1) with dependent variables Hockey performance and p-value for two-tailed significance set at 0.05 level. Thus, we can conclude that there is positively significant correlation for this independent variables Achievement Motivation, Sports competition Anxiety, Aggression, Self-Concept with the hockey performance.

**Discussion of Findings**

To find out the Mean and Standard Deviation score of identify, recruit and develop talented female hockey players in hockey academy in Gwalior who are potential junior. A medal standard athletes for future World Championships and Olympic Games. The selected variables Hockey performance, Psychological variable: Anxiety, Aggression, Self-concept, Achievement motivation of female junior national hockey players and the multiple correlation hockey performance with the selected variables Psychological variable: Anxiety, Aggression, Self-concept, Achievement motivation of female junior national hockey players. The reason of these differences can be associated with above results this is probably due to the different nature of the physical components training and pre-requisite for students. Number of participation and level of participation. The reason may be attributed that the physically trained student or level of achievements and taken deferent types nutrition food. These results may be due to a small sample of size and other factors such as different types of body, differences in body composition. These results may be nutrition diet schedule deference. The reason may other Psychological variables like stress, sports fear, self-confidence, attention concentration etc.

**Conclusions**

According to objectives of the study the following conclusions were drawn

1. There was significance Mean score of psychological variables (Achievement Motivation, Sports competition Anxiety, Aggression, Self-Concept) for the female junior nation hockey players of hockey academy, Gwalior.
2. The strongly indicate that there were significant relationship in relation to the selected psychological variables, total eight variables Achievement Motivation, Sports competition Anxiety, Aggression, Self-Concept...
with hockey performance, for the female junior nation hockey players of hockey academy, Gwalior.

Recommendations
In the light of the conclusions drawn; the following recommendations are made:
1. Similar types of study may be conducted on male players or Students.
2. Similar types of study may be conducted for different games and sports, body composition and other anthropometric measurements, skinfold measurements where the important role of players such as different games and sports inter college, inter varsity, all India University etc.
3. The study may be conducted utilizing the college level students of different university of other states.
4. Similar types of study may be conducted for different games and sports, where the body composition and biomechanical variables, skinfold measurements and BMI role of players such as different games and sports and deferent level of achievements or college, inter varsity, senior National and International level players etc.
5. Similar types of study may be conducted for different games and sports, where the group body composition and anthropometric measurements, skinfold measurements role of players such as different games and inter college, all India university etc.

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