SUMMARY

The variability in behaviour, particularly in competitive settings, has necessitated an examination of the athletic and the personality dimensions. A precise picture of psychological make-up of an athlete can be better based on the understanding of the event-role specific psychological demands.

A certain combination of personality traits seem to be associated with athletic accomplishment. Such traits indicate considerable inter-sport variation. It has also been found that certain psychological traits distinguish the high level performers from the low level performers. It is reasonable to surmise that different events in sports put different and specific demands on athletes. For instance, athletes in team sports have been assumed to be different in their psychological make-up from athletes of individual events.

The relationship between athletic participation and extraversion/introversion shows notable inter-sport differences. It is safer to state that positive correlation
between performance and extraversion may exist in specific sports only. In some sports are likely to attract introverted personality type.

Sport - an excellent vehicle for socialization - has been accepted as a channel for sublimation of aggressive tendencies and promoter of personality adjustment. Games and sports form an ideal setting that helps in social and emotional adjustment and fostering of healthy relationships. Social experience gained through a variety of predictable and unpredictable situations, produced by individual and team sports, may help athletes make better home and educational adjustment as well. The influence of various sports experiences on adjustment and the impact of adjustment on the performance has yet to be studied specifically. Nevertheless, the level of adjustment required for individual and team athletes appears to be different.

Vigilance, an important cognitive factor, seems to follow the pattern of sports specificity. While it seems to be the principal requirement of all the team sports, it appears to be key factor in determining performance in individual sports, such as gymnastics, boxing and wrestling.

Most of the studies dealing with the psychological characteristics of team and individual athletes have come out with equivocal results. Athletes were generally perceived
as outgoing, socially confident, competitive and less anxious. Some studies have shown that the experienced athletes were significantly superior to the less experienced ones in respect of extraversion and sociability. Other studies found difference in personality traits between athletes in one sports and those in the other. The inconclusive findings have motivated the investigator to undertake this research project. The present study is titled as, "Comparative Study of Psychological Characteristics of Athletes in team games and individual events". Its objectives were as follows:

1) To compare the individual and team athletes on selected psychological variables viz. adjustment, extraversion, neuroticism, psychoticism and vigilance.

2) To find out differences in the levels of the selected psychological variables;
   a) between the successful and unsuccessful athletes (individual & team); and
   b) among the various sports groups (individual & team).

Hypotheses

The hypotheses of the present study were as follows:

1. Individual and team athletes would significantly differ from one another with regard to adjustment (home, health, social, emotional and educational).
2. Successful athletes would differ from unsuccessful athletes with regard to adjustment: home, health, social, emotional and educational.

3. There would be substantial differences between individual and team athletes as regards extraversion, neuroticism and psychoticism.

4. There would be marked differences between successful and unsuccessful athletes with respect to extraversion, neuroticism and psychoticism.

5. Individual and team athletes would appreciably differ in their level of vigilance.

6. There would exist notable differences between successful and unsuccessful athletes as regards to vigilance.

7. There would be inter-sport psychological differentials among athletes of various sports groups (individual and team) in terms of,
   a) Extraversion, neuroticism and psychoticism;
   b) Home, health, social, emotional and educational adjustment; and,
   c) Vigilance.

Sample

For the accomplishment of the study two hundred and two (202) athletes (88 individual and 114 team athletes), who have made grade for the respective coaching camps prior
to the All India Inter-Varsity competitions (drawn from various colleges of Panjab University) were registered as subjects.

The following individual sports and team games were selected for the study:

**Individual sports**
- Track and field
- Boxing
- Cross-country Races
- Gymnastics
- Wrestling
- Weight-lifting

**Team games**
- Basketball
- Football
- Handball
- Hockey
- Kabaddi (NS)
- Volleyball

**Tools of data collection:**

The following tools were used to collect the data:

1) Adjustment inventory for college students (Sinha and Singh, 1980).

2) Personality Questionnaire (standardised version of E.P.Q.); Mohan and Virdi, 1985.

3) Cognitive Vigilance Task (Mohan, J., 1982).

**Statistical design:**

This was a comparative study of psychological characteristics of individual & team athletes, successful & unsuccessful athletes and of athletes of various sports groups. To compare their status on selected psychological
variables, bivariate and multivariate analytical procedures were used.

**Findings:**

Individual and team athletes have not been found to be significantly different from one another on various areas of adjustment except educational adjustment, where the difference between the two has been found to be significant. Marked inter-sports differences have been found on all areas of adjustment. Basketball, boxing and handball groups have registered significantly better allround adjustment, whereas track & field and hockey groups being poor on adjustment have differed considerably from other sports groups. Successful athletes differed significantly from unsuccessful athletes on all areas of adjustment.

Individual and team athletes have differed significantly on extraversion and neuroticism but no significant differences have been found between the two on psychoticism. Significant inter-sports differences have been found among various sports groups on extraversion, neuroticism and psychoticism. Successful athletes have also differed notably from unsuccessful athletes with respect to these variables.

Individual and team athletes have been found to be appreciably different from one another with regard to vigilance.
Various sports groups have also recorded significant intersport differences in their scores on vigilance. Successful athletes have differed significantly from unsuccessful athletes on vigilance.
Conclusions

I. Psychological differentials between individual and team athletes (total sample)

(1) Adjustment

a) On all the areas of adjustment, individual and team athletes belong to average categories with satisfactory levels of adjustment.

b) On educational adjustment, team athletes have been found to be significantly more interested in educational activities than individual athletes, demonstrating much better educational adjustment.

c) No significant differences have been found between individual and team athletes on home, health, social, emotional and total adjustment. The team athletes have recorded marginally better levels than individual athletes on home and social adjustment, whereas individual athletes have been found to acquire slightly better levels than team athletes on health and emotional adjustment.

The hypothesis number 1 stands partially rejected as the individual and team athletes have differed significantly on educational adjustment only and not on other areas of adjustment.
(2) **Extraversion, neuroticism and psychoticism**

a) **Extraversion**: Individual athletes have scored significantly higher with regard to extraversion than team athletes.

b) **Neuroticism**: Individual athletes have scored significantly higher on neuroticism compared to team athletes.

c) **Psychoticism**: Both the groups (individual and team athletes) have scored low on psychoticism and, no significant difference has been found in their levels of psychoticism.

Hypothesis number three stands partially accepted as the study confirms significant differences between individual and team athletes on extraversion and neuroticism but not so on psychoticism.

(3) **Vigilance**

Team athletes have been found to be significantly better on vigilance scores compared to individual athletes.

Hypothesis number five has been proved to be correct as individual and team athletes have recorded significant differences on vigilance.
II. Inter-Sports differences

(1) Adjustment

a) Home adjustment

Basketball, football and boxing groups have scored 'Good' (above average) levels on home adjustment, other sports groups have scored 'Average' (satisfactory) levels on home adjustment.

Basketball, football, volleyball, boxing and handball groups showing better levels on home adjustment have differed significantly from hockey, track and field and kabaddi sports groups.

b) Health adjustment

Basketball, weight-lifting, gymnastics, cross-country, boxing and volleyball sports groups have been found to possess 'Good' (above average) levels on Health adjustment. On the other hand, football, handball and kabaddi groups have recorded 'Average' levels, and wrestling, track & field and hockey sports groups have had 'Unsatisfactory' levels on health adjustment.

Basketball, weight-lifting, cross-country, boxing and volleyball sports groups being better on health adjustment have differed substantially.
from track & field, wrestling, hockey and kabaddi sports groups.

c) Social adjustment

Basketball group has registered 'Good' (above average) level, whereas, boxing, cross-country, gymnastics, weight-lifting, wrestling, football, handball, kabaddi and volleyball groups have recorded 'Average' levels. Hockey and track & field groups have recorded 'Unsatisfactory' levels on social adjustment.

Basketballers being the best have differed significantly from all other sports groups with respect to social adjustment. Track & field and hockey groups with unsatisfactory levels on social adjustment have also differed significantly from all other sports groups.

d) Emotional adjustment

All the sports groups have recorded 'Average' levels on emotional adjustment. Volleyball and boxing sports groups tend to be emotionally stable and differ significantly from gymnastics, track & field, cross-country, football and hockey groups on emotional adjustment.
e) **Educational adjustment**

Basketball and handball groups have recorded 'Good' (above average) levels on educational adjustment and have differed significantly from all other sports groups except football. All other sports groups have registered 'Average' levels.

f) **Total adjustment**

Basketball, boxing and handball groups have secured 'Good' (above average) levels on total adjustment. All other sports groups have been found to secure 'Average' levels on total adjustment.

Basketball group being the best has differed significantly from all other sports groups except the weight-lifting group. On the other hand, track and field and hockey groups falling on the poorer side of the average level on total adjustment have also differed considerably from all the other sports groups.

2) **Extraversion, neuroticism and psychoticism**

a) **Extraversion**

Basketball from team sports, and track and field from individual sports have been found to be higher on extraversion and significantly
different from volleyball and football groups, which have registered lower levels on extraversion.

Football and volleyball groups securing lower levels on extraversion have differed significantly from all other sports groups except hockey group.

b) Neuroticism

Football group registering the lowest level on neuroticism has differed significantly from all the other sports groups.

Boxing, basketball and volleyball groups recording lower levels on neuroticism, have differed substantially from track & field, cross-country, gymnastics, weight-lifting, hockey and kabaddi groups which have reported higher levels on neuroticism.

c) Psychoticism

All the sports groups have recorded lower levels on psychoticism.

Basketball groups being the lowest on psychoticism has differed significantly from track & field, cross-country, wrestling, football, hockey, kabaddi and volleyball groups.
Cross-country groups securing higher level on psychoticism has differed greatly from boxing, gymnastics, weight-lifting, basketball, football, handball, kabaddi and volleyball groups.

3) Vigilance

Gymnastics and boxing (both individual sports) groups have performed significantly higher on vigilance.

Track and field, weight-lifting and cross-country groups have performed significantly lower on vigilance.

Hypothesis number seven stands accepted as inter-sports differences with regard to the chosen variables have been found among various sports groups.

III. Psychological differentials between successful and unsuccessful (individual and team) athletes

1) Adjustment

a) Home adjustment

Successful team athletes being the best on home adjustment have differed significantly from unsuccessful athletes of individual and team sports.
Successful athletes (total sample) with better home adjustment have differed appreciably from unsuccessful athletes (total sample).

No significant difference has been found between successful individual and successful team athletes in their levels on home adjustment.

b) Health adjustment

Successful athletes (total sample) have differed significantly from total unsuccessful athletes of individual and team sports on health adjustment.

No major difference has been found between successful individual and successful team athletes in their levels on health adjustment.

c) Social adjustment

Successful team athletes being better in social adjustment have recorded significant differences on this variable compared to successful individual athletes and unsuccessful individual and team athletes.

Total successful athletes have also differed significantly from unsuccessful athletes (total sample) on social adjustment.
d) Emotional adjustment

Successful athletes (total sample) with better emotional stability have differed significantly from total unsuccessful athletes of both the categories.

No significant difference has been found between successful individual and successful team athletes in their levels on emotional adjustment.

e) Educational adjustment

Successful athletes (total sample) have been found to be significantly interested in academic activities compared to total unsuccessful athletes of both (individual and team) categories.

No significant differences have been found between successful individual and successful team athletes in their interest in educational activities.

f) Total adjustment

No marked difference has been found between successful individual and successful team athletes in their levels on total adjustment.
Successful athletes (total sample) with better all round adjustment have differed significantly from total unsuccessful athletes both (individual and team) categories.

Hypothesis number two stands accepted as the successful and unsuccessful athletes have differed significantly on all areas of adjustment.

2) **Extraversion, neuroticism and psychoticism**

a) **Extraversion**

Successful athletes (total sample) showing higher level on extraversion have differed considerably from total unsuccessful athletes of both (individual and team) categories.

Successful individual athletes acquiring higher scores on extraversion have differed significantly from successful team athletes.

b) **Neuroticism**

Total successful athletes have not differed significantly compared to total unsuccessful athletes of both categories on neuroticism, though unsuccessful athletes have recorded higher level on neuroticism.
Successful individual athletes possess significantly higher level on neuroticism compared to successful team athletes.

c) Psychoticism

Successful athletes (total sample) being lower on psychoticism have differed significantly from total unsuccessful (individual and team) athletes.

No significant difference has been found between successful individual and successful team athletes in their levels on psychoticism.

The fourth hypothesis stands partially accepted, as the successful athletes have differed significantly from unsuccessful athletes on extraversion and psychoticism but not on neuroticism.

3) Vigilance

Successful team athletes have performed significantly better than successful individual athletes on vigilance.

Total successful athletes scoring higher on vigilance have also differed significantly from total unsuccessful athletes of both (individual and team) categories.
Hypothesis number six stands accepted as successful and unsuccessful athletes have differed significantly with regard to vigilance.

Implications of the findings

Successful athletes have been found to be considerably better on all areas of adjustment compared to unsuccessful athletes. This suggests that importance should be given to adjustment during training and competition. The competitions among athletes should be arranged in such a way that each one may experience success at some moment.

In small area sports such as basketball and volleyball, where the athletes have been found to possess higher adjustment level should find favour with the planners to promote adjustment among participants. These court games are recommended during off-season for athletes specialising in other areas, to promote adjustment.

Since the extraversion has been found to be positively related to successful athletes, it may be given some weightage in the selection of talent, i.e. in those cases where the athletes demonstrate equal level of skill, the extraverted individual may be preferred.
Mass-participation in sports is also recommended to contain neurotic tendency and to arrest psychotic problems, as the results of this study indicate that athletes have been found lower with respect to neuroticism and psychoticism.

Vigilance, an important determinant of performance, has found favour with team athletes and with successful athletes. This emphasises the need that vigilance should be considered as a cognitive factor while selecting the team athletes.

**Suggestions for further research**

1. A similar study may be undertaken on women athletes.

2. The scope of the study can be widened to cover (a) the national level athletes, or (b) junior athletes, or (c) athletes of Indian universities, or (d) by including more sports.

3. An in-depth study may be undertaken to examine the event-role and position-role specificities.

4. The psychological variables which have not been included in this study may be studied to gain a broader understanding of athletes belonging to various sports groups.

5. A project may be undertaken to study whether team games develop vigilance amongst individual participants or whether team games attract vigilant individuals.