SUMMARY

Physical Fitness has frequently been defined as “the ability to carry out every day tasks with vigor and alertness, without undue fatigue and with ample energy to enjoy leisure –time pursuit and o meet unforeseen emergencies”.

The purpose of the study was to determine the psychomotor distinct variables in relation to performance in basketball ability in the University of Madras inter collegiate Basketball Championship Men players. As asub - problem the psychomotor distinct variables were compared among the participating University of Madras inter college teams.

University of Madras inter collegiate Basketball Championship men was held at Chennai on 2012-2013. The players represented from 25 college teams all over Chennai. Based on the performance of the players the first 20 ranked teams (N = 240) were selected on a purpose sampling and grouped into three groups. Group I comprised of seven teams (N=84) they were the first best elite players. Group II (N=84) were the second best elite players and Group III consisted of six teams (N=72). The selected nine psychomotor distinct variables such as agility, balance, differentiation ability, explosive power, eye–hand coordination, kinesthetic perception, orientation ability,
vacation ability and speed were independent variables. The basketball playing ability was termed as the dependent variable.

The study was formulated as a status cum prediction design, and the sub– problem as a status cum comparative design.

Criterion measure chosen for agility was shuttle run time taken in 4x10mts. Shuttle run was recorded to the nearest 1/10th of a second. Balance was determined by administrating modified bass test of dynamic balance was used up to five second each mark and five point score was awarded for each successful landing on the mark. Differentiation ability was assessed by using backward medicine ball throw and score was measured in points. Explosive power was measured by using jump and reach test (Sargent jump) and score was recorded in centimeters. Eye- hand coordination the total number of correct trials of the subject with the help of ball transfer test and score was recorded in points. Kinesthetic perception was measured by kinesthetic obstacle test and score was recorded in points. Orientation ability was measured by numbered medicine ball test and score was recorded in seconds. Reaction ability was measured by using ball reaction exercise test and measured in centimeters. Speed time taken by an individual to run a distance of 30 mts. dash recorded to the nearest 1/10th of a second.

In order to determine the distinct variables on the basketball performance, the dependent variable was basketball performance in the University of Madras inter collegiate Basketball Championship men while the independent variables were the selected as psychomotor variables. The basketball performance was assessed with the help of scores attained by
players given by the selected three experts during the year of 2012 to 2013 University of Madras inter collegiate Basketball Championship Men. The score was awarded by the experts for maximum of 50 marks for each players during the championship matches. The playing ability was assessed under ten (10) categorical skills.

1. Passing  6. Offensive rebound
2. Dribbling  7. Defensive rebound
3. Shooting  8. Tactis

The test was administrated during the University of Madras inter collegiate Basketball Championship held at Chennai on 2012-2013.

The tester’s reliability and subject reliability of tests were established by test – retest method and the reliability of coefficients were found to be satisfactorily high.

For analysis of the data, the mean and standard deviation were calculated. To examine the significance of the psychomotor components among the groups ‘F’ ratio were calculated. The data on performance along with psychomotor variables was examined by Pearson’s product moment correlation separately. Multiple regression equation was developed in order to predict the basketball performance on the basis of selected psychomotor variables.
The level of significance was set at the point 0.05 level of confidence to test the obtained correlation by Pearson’s product moment correlation. 0.05 level was considered appropriate, because the research process adopted did not involve highly sophisticated equipments, demanding the application of more stringent level of significance. In using the product moment correlation a value of 0.138 was needed for significance at the 0.05 level of confidence for two hundred and thirty eight degree of freedom.

Findings indicated that among the different elite groups of basketball in psychomotor distinct variables no significant differences was found in agility (0.389), balance (1.606), differentiation ability (1.675), kinesthetic perception (1.611), orientation ability (1.461), reaction ability (1.611) and speed (1.271), as the obtained values was less than the desired value of 2.41 at the 0.05 level confidence.

The score for each of the selected psychomotor distinct variables were correlated with the criterion variable that is the basketball performance ability.

Findings indicated that performance in basketball was significantly associated with agility (r=0.470) balance (r=0.936), differentiation ability (r=0.953), explosive power (r=0.968), eye - hand coordination (r=0.655), kinesthetic perception (r=0.744), orientation ability (r=0.897), reaction ability (r=0.972) and speed (r=0.625) as the obtained values were more than the desired value of 0.138 required for the coefficient of correlation to be significant at 0.05 level of confidence, with 238 degree of freedom. Therefore, it is evident that agility, balance, differentiation ability, explosive
power, eye – hand coordination, kinesthetic perception, orientation ability, reaction ability and speed contribute to the performance of players in basketball.

The multiple regression analysis showed that significant linear relationship exists between basketball performance with reaction time differentiation ability, explosive power, eye-hand coordination, kinesthetic perception, orientation ability and balance ability respectively.

The resulting regression equation was: basketball performance = 20.0291 + 0.047 reaction time 0.109 (explosive ability) + 0.186 (differentiation ability) +0.008 (kinesthetic perception) +0.0340 (orientation ability) + 0.018 (balance ability) + 0.104 (eye – hand co-ordination).

CONCLUSIONS

On the basis of the analysis of the data as well as in the view of observations, along with the objectives and within the limitations of the present study the following conclusions were drawn:

1. There was a significant correlation between the agility, balance, differentiation ability, explosive power, eye-hand coordination, kinesthetic perception, orientation ability, reaction ability and speed with performance.

2. No significant differences were found among the three groups of basketball player in selected psychomotor variables that is agility, balance, differentiation ability, explosive power, eye-hand
coordination, kinesthetic perception, orientation ability, reaction ability and speed.

3. The selected psychomotor variables were balance, differentiation ability, kinesthetic perception, orientation ability and reaction ability may be used as predicting factor to assess the basketball performance.

RECOMMENDATIONS

On the basis of the results obtained the present study the following recommendation were made:

1. It is the fact that a large number of sports and games are strength, speed and power dominated. Hence it is recommended from the results of the study that coaches and physical Education professionals shall include as on aid screening and selecting the Basketball Men players.

2. A similar study may be attempted by selecting the college Men Basketball Players.

3. In the selection and training programmes for basketball players emphasis must be laid on agility balance, differentiation ability, explosive power, eye-hand coordination, kinesthetic perception, orientation ability, reaction ability and speed respectively.

4. It is recommended that the same study may be repeated by selecting subjects belonging to different College levels competition in the present study.
5. A Similar study may be conducted to see if high scores on selected psychomotor variables by a player will predict the basketball performance as inter collegiate Men Basketball players.

6. Study may be conducted other team games and sports with similar study may be conducted among Male subjects.

7. A similar study may be conducted utilizing the other psychomotor variables in addition to the variables chosen in this study.