CHAPTER II
REVIEW OF RELATED LITERATURE

To get a clear-cut idea of selecting associated factors of a talented Handball player, ample of literature have been reviewed in this chapter. The detailed reviews have been classified as follows:

- Studies on Handball Research.
- Studies on Psycho-physiological Status & Performance.
- Studies on Fitness & Performance.
- Studies on Skills, Tactics & Performance.
- Studies on Test Development.

This section supports the need and justification of the present investigation for specific target of population (i.e., junior male state level Handball players).

Chittibabu et al. (2014) studied that the “Relationship of elite fitness elements on shooting accuracy of ladies handball players”. the aim of the study was to seek out out the link between the chosen fitness variables like speed, agility, explosive power and speed endurance on shooting accuracy. For these study thirty girls handball players United Nations agency were finding out within the university was elite every which way. Shooting accuracy of handball players was measured by nine meters (jump and throw test). fitness variables like speed was measured victimization fifty m, gracefulness was measured with the assistance of shuttle run check, explosive power was measured with vertical jump check and speed endurance was measured by 600 yard run. The result of the study was that the relationship between shooting accuracy and speed, agility, explosive power and speed endurance. It was evident that speed and speed endurance exhibited a significant relationship with shooting accuracy of women handball players.

Zambudio, et al. (2014) studied that the “Relationships between mensuration measures and strength performance in young football players”. potential relationships between mensuration measures and athletic performance, focusing on strength related variables. For the present study research scholar selected twelve young soccer player
at the age of 24yrs are selected. They performed a CMJ, CMJ-BW loaded, 40 m sprint and one Repetition Maximum (RM) in back squat test. Main findings from this study were the strong associations between anthropometric measures and relevant strength variables related to physical condition performance in soccer. CMJ and CMJ-BW Loaded were strongly correlated with 1 RM, 40 m sprint performance and shuttle sprint at 15m and 30m. BF was surprisingly highly correlated to CMJ, 1RM and different sprint times. The result of the Therefore, BF was negatively associated with physical fitness parameters.

Balasubramanian et al. (2014), investigated that the “Effect of small-sided handball game on aerobic capability and recurrent sprint ability of to work out the results of 4 and eight weeks small-sided handball game on aerobic capability and recurrent sprint ability of male handball players. For this study analysis scholar haphazardly designated sixteen male university handball players and allotted into small-sided handball game cluster (SSHG) and management cluster (CG). Small-sided handball game was administered Subjects were measured on aerobic capability, total sprint time and fatigue index on 3 occasions 1st before administration of coaching as pre-test, once four weeks of coaching as middle check and once eight weeks of coaching as post-test. A two-way recurrent live ANOVA with last issue recurrent disclosed that aerobic capability, total sprint time and fatigue index improved. Aerobic capability showed AN improvement of 4 weeks and eight weeks of small-sided handball game coaching in male handball players. The results of the study shows that small-sided handball game was effective in up aerobic capability in four and eight weeks of coaching however total sprint time and fatigue index evoked changes once eight weeks.

Barbero et al. (2014) studied that current study analysis scholar elect nineteen men from knowledgeable handball team vie a simulated 30-min match in an outside sport facility. Instant speed throughout the games was assessed mistreatment GPS devices and the number of body-impacts above 5-g was measured by accelerometer. Individual heart rate was also measured by using heart rate monitors. Handball players covered 94.0±7.7 m/min during the simulated match with a mean of 82.5±4.7 % of maximal heart rate. The average speed of the wingmen was significantly higher than pivots, centers and backcourt players. Running pace at sprint speed was on average
2.4±2.3 m/min but it was significantly higher in wingmen than in the remaining playing positions. The overall number of body-impacts was 13.6±7.7 per min of game with pivots being the players that presented the highest values. It was concluded that physical demands of elite handball are primarily related to high-intensity actions, impacts and rapid recovery during the sport. The coaching of elite handball players ought to be specific to the exercise actions performed throughout the sport.

Souhail et al. (2014) investigated that “Reliability and Validity of a replacement Handball lightsomeness Test: Association with Specific Skills and Muscular Explosive Determinants of Lower Limbs in Young Handball Players”. The irreponsibleness and validity of a replacement handball lightsomeness take a look at (HAT), and to gauge the association between the take a look at and also the explosive performance measurements of lower limbs in young handball players. For this study analysis scholar chose cardinal handball players at the aged of 15yrs. All subjects conducted the HAT (i.e. employing a changed angularity zigzag course consisting of 3 5-m sections launched at 100° angles with slalom dribble ball) on an inside artificial pitch. Electronic temporal order gates were wont to record completion times. 2 in style lightsomeness tests performances. Subjects additionally underwent measurements squat and counter-movement jumps, sprinting velocities on 5-m (V5) and 10-m (V10), and handball specific ability take a look at (HST). The results of the investigation showed no distinction between test–retest HAT scores. Intra-class irreponsibleness of the HAT was bigger than zero.91 across the trials. HAT was closely associated with each the T-half take a look at and Illinois lightsomeness tests. The correlations of HAT with the numerous fitness measures of lower limb varied significantly. vital correlations were found between HAT, CMJ and SJ. The conclusion of the investigation was The weak relationship between HAT and strength and straight speed suggests that lightsomeness needs alternative determinants of performance as coordination. it absolutely was terribly appropriate for watching athletic performance of the lower-limbs in young handball players.

Ruiz et al. (2013) investigated that “Game Performance Versus Competitive Performance within the World Championship of Handball 2011”. The aimed of the investigation was to assess the sport performance of the groups collaborating within the
Men’s World Championship of Handball of 2011 by victimisation information introduction Analysis (DEA) and also the cross-efficiency analysis. Drug Enforcement Administration uses applied mathematics to yield a live of the performance of the sport of explicit groups, and permits to spot relative strengths and weaknesses by suggests that of benchmarking analysis. The cross-efficiency analysis provides a peer- appraisal of the groups with totally different patterns of game, and makes it doable to rank them. Comparisons between this ranking and also the final classification within the championship offer Associate in Nursing insight into the sport performance of the groups versus their competitive performance.

Venkatesh et al. (2013) studied that the Relationship between coordinating skills and performance in elite feminine Handball players. link between coordinating skills and performance in elite feminine Handball players. For this study analysis scholar elite a hundred and twenty elite Handball players at the age of eighteen to twenty five years. The results of this study was showed extremely negative important correlation between elite feminine handball players’ performance and rhythm ability and orientation ability, however there was no important correlation between differentiation ability and performance in elite feminine Handball players. it absolutely was all over that there was a major correlation between rhythm ability and orientation ability and performance in elite feminine handball players. so coordinating skills rhythm ability and orientation ability had result on performance in elite feminine handball players.

Zubik et al. (2013) investigated that “Identifying talented handball players – the possibilities of examining the players by means of speed-force and coordination tests motor skills and the computerized motor skills tests in identifying the talented handball players. For the present study research scholar examine the players' from two junior teams were compared. The first test was performed before the players started high school, that is, at the age of sixteen. The results were compared with the sport level examined during the second test, performed when the players reached the senior age (nineteen years old). The Spearman’s rank correlation coefficient among the ranking results, somatic features and motor skills, was used in the analysis, with the level of statistical significance being. Significant statistical correlations were discovered between the level of anaerobic force of the examined handball players when they are sixteen,
and their sport level when they are nineteen years old. The significant statistical correlations may be one reason to use the tests of speed-force skills to identify the talented handball players described in this thesis. Among the coordination skills, only the multitasking ability proved to have significant statistical correlations with the players’ sport level.

Cox’s, et al. (1985) study was relationship between performance in selected psychological measures. The subjects for this research were 157 female volleyball players who participated in a 16-team invitational collegiate volleyball tournament. The battery of selected psychological tests were administered to all athletes at least two hours prior to their first match on second day of the tournament. Volleyball performance was measured throughout the tournament. The results of the investigation The best model for predicting volleyball performance was obtained when psychological measures were correlated with a composite score of volleyball performance. It was concluded that, relationship between an athletes’ psychological profile and volleyball performance is relatively high, accounting for 41 percent of the variability.

Blundell, et al. (1981) studied the relationship among intelligence, gender, aspiration level, and level of achievement in motor skill activities. 54 boys and 50 girls Australian 8th grade students aged between 12-14 years, with no previous field hockey experience, participated in this study. During the initial three weeks of the study students were provided with instruction and practice on four field hockey skills. The student had four weeks of self-structured practice on the skill task. During the seventh and eighth weeks they were evaluated on the 4 skills. Intelligence was measured by the “inter D” test, administered statewide by school counselors just prior to student participation in this study. Kendall’s correlation, these statistical techniques was used to determine the statistical significance.

Yoo, et al. (1990) established the relationship between playing position in football and selected psychological variables. Ss were 43 division one intercollegiate football players. The athletes were categorized as a function of team (offense Vs defense) and position (linemen and backfield). Data were analyzed using MANOVA and follow up ANOVA procedures. In the first anal, team and playing positions were studied relative to
psychological skills. In the second anal, team and playing positions were studied relative to mood states as measures by the profile of the mood states.

Carlisle, et al. (1985) Performance statistics and personality measures (Cat, 16 PF) were obtained from 49 women intercollegiate basketball players in the Big state conference. Stepwise discriminant analysis resulted in one significant function (p<0.05), which explained 44% of group differences. High and low performance groups were differentiated from the middle group but not from each other. High and low performers scoring indicates higher on the factors of intelligence and self-assurance than the middle group.

Wallace, et.al. (1982) study found the relationship of personality and motivation factors to free throw performance. The subjects for this research were 65 SHS and collegiate women’s varsity basketball players; determine using the 16-PF and AMI index. Multiple regression was used to select the most important psychosocial predictors to estimate free throw performance.

Dorman, et al.(1970) investigated creativity as significant concept in sport, dance, and physical activity. Examination was accomplished through the philosophical method of conceptual analysis. In order it was necessary to explore creativity in general and creativity in art, in literature, and in psychology. This examination led to discovery of certain basic factors underlying the creative process in sport, dance, and physical activity, these basic factors were applied to physical activity to determine if it incorporated them. Finally, five representative activities were explored to see how they involved the creative process. These activities were dance, golf, field hockey, gymnastics, and children’s play.

Tenebaum, et al., (1988) studied two hundred young were tested which included (e) coordination, (f) sit-ups, Categorizing results for each group and standardizing the final score separately achieved control of age. The best 28 boys were considered “High potentials” (HP: above 86th percentiles); Moderate potentials” (MP; 61st-75th percentiles). Following one month, children were given a battery of psychological measures, which included concentration, LOC, frustration and anxiety. Two competitions after one year were used as criterion measure. Multiple leaner regressions revealed that 58% of variance in gymnastic performance was explained by psychological variables,
particularly concentration (speed and accuracy), need persistence and ego defense. Physical predictors together explained only 48% of the gymnastic variance, particularly “running between lines”, “pull-ups”, and “shoulder flexibility”. Psychology and physical components, together explained about 70% of the variance. As hypothesized HP performed significantly better than MP. Psychological differences were evident which indicates some new considerations in talented gymnast selection.

Shin, et al. (1988) on before and after the game and the rest, and the relation between anxiety and win or lose by selecting 29 (18 male and 11 female) hockey players who took part in the 69th national sport games, Korea. All subjects participated voluntarily in this test and they won the semifinal game. The measurements were executed 3 times by dividing 3 situations: 1) just after warm up (within 5 min before the game), 2) within 5 min after the game, and 3) rest (within 2 hours before the sleep) using the impatience reaction timer after a semifinal game, and the SCAT was taken only 1 time before the final game. The basic time for the impatience reaction time (IRT) was 5 seconds. The correlation between the SCAT and the IRT were analyzed using the Pearson formula and mean of difference was tested using ANOVA by VAX-11/750 computer in the Korea sport science institute. The SCAT scores of female athletes displayed that mean of row scores and SD scores representing only 22% from lower anxiety level. But male athletes showed that mean of row scores and SD scores representing only 61% from lower anxiety level. The IRTs of male players recorded mean: on the rest, before the game and after the game, the differences of the mean were very significant (p<0.01). But female players IRTs mean were not significant. And the male players showed great differences of mean of the IRT according to the situations, who lost in the final game and female showed no differences according to the situations, who won in the final game.

Vattoly, et al. (2001). Analysis of physiological and anthropometric profiles of players from selected sate school teams was done by A total of sixty female subjects were selected from the games Basketball (U19 and U17), Handball (U19 and U17), and Volleyball (U19), who were selected to represent Kerala school teams at national level.
The variables were standing height, body weight, fore leg length, thigh length, arm length, pondered index (PI), crural index (CI), body surface area (BSA), F-ratio followed by had significantly higher profiles as compared to their own age groups in other games as well as lower groups of other selected games. This higher level of anthropometric and physiological profile was much supportive factors in putting up a good performance in their team competitions. Handball U17 group showed very low level in their anthropometrical and physiological profile, which is not at all supportive to higher-level performance of the team. The other selected game groups were with better mean score on their anthropometrical and physiological variables to support their bodily qualities for good performance.

Debray, et al,( 2002) The present investigation was carried out on thirty six females Indian national soccer players (age 23.2 ± 3.4 years) were sub-divided according to their specific field positions (forwards-16, defenders-13, goalkeepers-7). Ht, wt, and mesomorphic component of the somatotype rating were calculated using standard procedure. Maximal O2 consumption and related cardiorespiratory variables were assessed by computerized treadmill. Ventilation threshold was analyzed by standard technique. Results of the study reveals that mean height and weight were to be found higher in goalkeepers as compared to defenders and forwards, but the difference was statistically insignificant. On the other hand defenders and forwards were found to be in VO2 max than their goalkeeper counterparts. The anthropometric profiles physical fitness level

Kruger, et al( 1997). Two hundred and eighty-five junior rugby players from junior clubs who participated in then first league were used as subjects Video recording was done to determine which physiological parameter plays a important role in the peak performance .The parameters identified were body compositions, muscles strength opt legs and shoulder girdle, explosive power of the leg, flexibility, endurance of the abdominal muscles speed, anaerobic power and aerobic power. In accordance with the above mentioned parameters the following tests were chosen percentage body fat, isokinetic muscle strength, flexibility, sergeant jump, 50 m dash, 10x22M shuttle run for preparing norms the percentile scale is used.
Dey, et al. (1999) found archery performance is highly dependent upon physiological traits along with other personality factors. They carried out the study at random on 20 males who participated in Archery Championship in 1995-96. The actual individual performance score officially recorded in the championship was considered as performance score. Age, standing height, total body weight, arm length, leg length, positive breath holding time, resting pulse rate, resting respiratory rate, resting systolic pressure, lean body weight, fat percentages, arm and shoulder strength, right and left hand grip strength and shoulder and wrist flexibility were measured and tested. The data was collected after employing the standard test and measurements best available in the literature. Product moment correlation between performance score with physiological traits was computed. The results revealed that the performance is insignificant correlated with other variables among male archers. Thus, the resultant performance of archery has probably responded in accordance with physiological variables. It is concluded that performance of male archeries were found significantly correlated with resting pulse rate, right hand grip hand and shoulder and strength and wrist flexibility.

Datta, et al. (1988) identified motor fitness components, which can help in prediction of performance in hockey. Male hockey players (n=74) studying in different universities of India were exposed to motor fitness components: Speed (50-yard dash), strength (right and left hand grip), Power (standing broad jump), Agility (dodge run), Dynamic balance (Johnson modification of Bass test), Flexibility (trunk and shoulder) and kinesthetic perception (a test of horizontal distance). The criterion measures were playing ability in hockey, which was based on the Strait field hockey rating scale. The analysis of data using zero order and multiple correlations revealed that playing ability in hockey is significantly related to speed ($r=-0.29$), right grip strength ($r=0.29$), left balance ($r=0.27$), and kinesthetic perception ($r=0.29$). Playing ability in hockey is ($r=-0.19$), flexibility ($r=-0.10$), and shoulder flexibility ($r=-0.16$). The analysis of data further revealed that the combined contribution of left grip strength, balance and speed to playing ability in hockey is Conclusion: 1) the components, namely, grip strength, balance, and kinesthetic perception contribute to playing ability in hockey where as power and flexibility do not underlie performance in this game. 2) Speed, left grip
strength and balance taken together, contribute most to the playing ability in hockey. 3) It is possible to predict playing ability in hockey based on performance in selected motor fitness components.

Maji, et al. (1998) administered fitness tests (strength status, the back and grip strength) on 264 national level sportspersons of various sports discipline such as badminton, football, boxing, wrestling, hockey, volleyball, and basketball. The back strength dynamometer and grip ANOVA was used to find out the variation among the groups and Sheffe’s ‘S’ in these parameters. The coefficient of correlations was computed within the disciplines among these physical parameters. The result revealed that significant differences in the back and grip strength exists between the means of some of the disciplines reflecting strength as an independent characteristic which may differ from game to game. Most of the physical parameters showed significant correlation except one or two cases but the tendency of the relationships were positive. Thus strength is an important aspect of physical conditioning and its requirement is different in various sport disciplines. It helps to develop athletes profile to monitor training and rehabilitation of injury. Significant positive correlation between strength and physical parameter within a group shows a balance physical condition, which is essential to all sports.

Singh, et al., (1997) assessed the performance and fitness of 11-14 years old swimmers according to German standards. Data was collected on 160 swimmers (80 boys and 80 girls) by conducting a battery of tests butter fly, 60sec chin up, 60sec sit up, 30sec jumping side ways over the bench, 60sec push up, 60sec upper body lift, 60m dash, and and 2000m run) used in Germany. The results revealed that Indian swimmers are much inferior to their German counterparts and swimming performance of Indian girls is very poor. On the whole the study indicates that the training and competition system for young swimmers needs comprehensive revaluation and change.

Tyson, et al. (1987) was used. The analysis revealed that Tamil Nadu cricketers showed higher standard than the minimum as in Frank Tyson’s in all physical fitness tests except in 15-min run and sit-up tests. The desired standard was crossed only in running speed / agility test. Tamil Nadu cricketers showed better performance in running
speed / agility when compared to the Australian counterparts. In muscular endurance Tamil Nadu cricketers couldn’t achieve the desire standard in both the tests. The desire standard was not attained in majority of the variables that need deeper analysis. From this study, it is indicated that Tamilnadu cricketers shoe poor fitness level, which has to be improved.

Shergill, et al., (1992) established the importance of a set of specific physical fitness components as contributors in hockey playing ability. On the basis of available literature, 22 relevant test items were selected to measure fitness components. The sample consisted of 100 female hockey players, age ranged between 18 to 24 years, from 4 universities of Punjab. The stepwise regression was applied to assess the importance of different variables in predicting hockey playing ability. The result of ‘t’ ratio suggested that endurance run test, standing broad jump, grip strength (LH), vertical jump, wrist flexion, age, height, and weight were significantly important in evaluating the hockey performance. Also, the results failed to find support for speed as an important predictor of hockey playing ability. The result of this analysis again stresses the positive role of physical fitness components in hockey playing ability.

Mal, et al. (2000) ad Motor abilities required for football players (n=97; age: 16-19 years) were studied by ministering the tests: 300 yards run, forward bending, bridge, throw-in, agility run without ball, sit up, 3 consecutive hops and 2.4km run. The results show that there are no significant differences in the motor abilities among the football players of various age groups. On the whole football players were found to be wanting in speed endurance and agility, but were found to be good in endurance. In the test of speed endurance they took 50.15 seconds to complete 300 yards. Where as in agility run they took 25.34 seconds to cover the distance of 56 meters in different specified manners. In endurance test the time taken was 587.39 sec (+/-43.39 sec) while referring the norm laid down for national level players the values obtained in endurance tests are considered in the satisfactory category. Performance in the test of trunk flexibility was also above average. In the test of leg strength the left leg is found too stronger than the right leg. Forward players show superiority in the tests for agility with out ball and speed endurance. Goalkeepers are equally good in a basic endurance and also possess high
degree of trunk flexibility. Defenders did not show superiority in any test but are not considered to be poor in any test.

Huan, et al. (1988) studied the multiple index synthetic evaluation of physical fitness for junior volleyballers in China. Applying the theory of measurement and evaluation as well as methods of statistics, this research first measured 694 male and 638 female junior volleyballers who came from 26 provinces, municipalities, and autonomous regions of China from July 1984 to August 1986. 13 events among 6 classifications of physical fitness parameters were measured and a synthetical mark was given instead of multiple index of overall physical fitness. Results: 1) Based on the normal distribution and graduated scoring, the developing level model (DLM) and evaluating criteria for each event of physical fitness were established. 2) According to relation between each kind of physical fitness and overall physical fitness in volleyballers, the evaluating criteria and DLM for overall physical fitness were made up. 3) Applying the regression analysis method, main factors that influence the overall physical fitness was workout and stepwise regression equation among the factors was set up. 4) Put forward a new physical conditioning guiding ideology: finding out poor events and practicing them remediably, as well as grasping the main events and training them intensively.

Mastudo, et al. (1988) analyzed the changes on the physical fitness variables in elite volleyball players. The athletes from the 1987 national Brazilian team were submitted to a battery of tests. Data from each athlete included: weight, height, skinfold thickness, arm and calf circumference, predicted VO2 max I (40 sec run test, 50 m run test, vertical jump with and without the help of arms, long jump and shuttle run. Data were compared to the national volleyball team The results showed a better situation of the 1984 Brazilian Olympic team in muscle mass; velocity (50m); aerobic (VO2) and anaerobic (40 sec) power.

Pereira et al. (1988) Physical fitness profiles of Brazilian top judoists through the Z-score strategy were assessed by to verify the relationship between the success in this modality and the progress in the z-values. Sixteen female judoists from the national Brazilian team were submitted to a battery of tests consisted of: weight, height, arm circumference, predicted VO2 max, 40 sec run test, 50 m run test. Data from 3 of those
who got medals at the 87-pan American games were analyzed apart (Medallists group). Authors concluded that there was a positive relationship between success and Z-values of weight, height, arm circumference, and 40 seconds run. They also found a positive relationship between success and Z-values of weight, arm circumference and Vo2 max in l (min) among male subjects.

Mukherjee et al (2012) conduct a study with the aim of comparing anthropometric measurements between handball and male Handball players at college level. A total of thirty (N=30) subjects were selected from St. Each group Fifteen subjects were selected from female Handball and handball group. The subjects ranged from 17 to 25 years. For this study, the variables body weight, standing height and chest circumference were selected. Data was obtained with the help of electronic weighing machine, stadiometer and non-stretchable measurement tape. The researcher used Standard procedures for collection of data. employed with shown insignificant differences in body weight and chest circumference. However, in case of standing height, significant differences were observed between Handball’s male and female players.

Spreeman et al (1983) conducted a study on 446 junior elite wrestlers participating in a National tournament in the United States. They found major differences in the degree of competitive stress reported by the wrestlers. In comparison to the high trait anxiety of wrestlers the low trait anxiety of wrestlers were also superior in terms of: (1) Their perception of personal ability. (2) Their pre-tournament confidence, (3) The percentage of all matches in which they did not. Worry, and (4) The trouble (lack of difficulty) they had in sleeping.

Marten et al (1982) study conducted on four sample of male Handball team found subjects scoring high on Achievement Motivation (Mehrabian Scale) are low in anxiety and high in achievement motivation. Same way subjects scoring low on Achievement Motivation Scale were found high in anxiety. The study further concluded that there was insignificant correlation-ship between competition anxiety and achievement motivation.

Singh et al. (1986) studied the level of anxiety between men and Women handball players of intervarsity level. Seventy three (36 male and 37female) subjects
comprising six teams were investigated. The subjects were members of first three position holders respectively. Marten’s administered to the sample selected for the study. ‘t’- test was applied to find out intra group differences. Analysis of variance was applied to find out the difference among the different position holder of male and female teams. The difference of competitive anxiety between male and female came out to be statistically significant at .05 level though over all level is moderate in both cases.

Pavicic et al. (1986) defined the degree of physical activity in sports events on the three samples of subjects. The sample with normal activity with moderate and versatile physical activity and the third group consist of elite athletes in water polo and rowing. Subjects were measured with a set of 18 anthropometric measures. The Hypothesis predicted significant difference between the given groups. the differences on the talent structure. Studying the results of multivariate analysis of variance and discriminative analysis on the measure and on the scores of subjects on principal components, statistically significant difference between given groups can be stated. Difference in groups can be explained by recession and by the influence of training process.

Sidhu et al. (1988) took anthropometric measurements of Indian female female Handball players having International level of participation. They found that the female Handballers were taller and heavier than the controls. The taller stature of female Handball players was mainly due to the longer lower extremity because the mean values of the sitting height in both the groups were almost comparable. Upper extremities were also longer for female Handball players and they also possessed broader shoulders, wider knees and wri

Luhtanen, et al.(1988) studied individual skills, understanding of the game and team skills of 138 Finnish national level junior soccer players (Age: 8-19 yrs). The terms in different age categories played six matches, which were recorded by video and coded for off-line computer software. All actions with ball were analyzed using different classified scales related to skill maneuvers. Selected technical skills, physical abilities, decision-making velocity and understanding of the rules and game were measured. The total amount of actions with ball in this study was 4800. On the average in one game with their own rules the players executed 29 passes, tried 34 recoveries of ball,
executed 5 dribbling, 2 shooting for goal, tried 20 interceptions, executed 4 dead balls. A goal executed on average 13 savings. Relatively players succeeded in their attempts as follows: passing 50%, recovery of ball 69%, dribbling 38%, shooting technically 66%, scoring 8%, interceptions 59%, dead balls 58%, and goalkeepers saving 82%. The average duration of actions with the ball was only 0.9 seconds. The mean distance covered in one action (pass and dribble) was 15 meter. The correlation coefficients between total technical skill tests were as follows: bouncing the ball 0.938, combined dribbling-wall- passing-shooting 0.889, passing0.877, and heading 0.501. The age was in more significant relationship between the successful skill maneuvers and understanding of the game than the years to play and practice. A combined dribbling-wall- passing-shooting test had the highest correlation ($r=0.504$) to the amount of successful pass in the game. The starting velocity in sprinting and dribbling test explained most of the success in the passes and dribbling. In conclusion, it could be stated that the players with tests starting and decision making velocity, and better ball control might have more time in the game to read the game and to execute the purposeful decisions for the existing situation than the players with lower corresponding velocities and skills.

Bettencourt, et al. (1971). Relationship between selected fundamental skills and team success in intramural junior college basketball was studied by Players (n=72) on 12 junior college intramural basketball teams were used as Ss. The ranking of 12 teams at the completion of league play were used as the criterion of team success. The 9 items of the AAHPERD basketball skills test was served as the independent variables. A mean score for each team on each test item was compute. The correlation for each test item was performed with the criterion of ranking. All correlations, with the exception of those for the under basket shot and jump and reach, were significant ($p<0.05$).

Doed, et al. (1991) investigated a factor structure of selected beginning-level racquetball skills in the domain of human motor performance to identify the robust factors in that domain. A battery of ten experimental variables difference in the factor structure for male and female. It was recommended that racquetball skills tests with higher reliability be developed, be used as similar study, be replicated on intermediate
and/or advanced level players and finally stricter guidelines be developed to differentiate between beginning-level and experienced players.

Maccormack, et al. (1977) established the relationship of selected hockey skills to success in ice hockey. A battery of selected basic skills in ice hockey was administered to 60 members of the St. Lawrence university hockey school, representing Data were collected at the end of both the 1st and 2nd week the hockey school. Objective rating of the Ss on the skill test were then compared to the subjective rating made by qualified coaches as a measure of playing ability. Final multiple correlation of coefficients for the 11-13 yrs old boys (r=0.71) and for the 14-16 yrs old boys (r=0.74) were determined variables added significantly to the regression equation (p<0.01). It was concluded that an ice hockey skill test battery was found to be reliable and valid measure of ice hockey playing ability.

Chapman, et al. (1980) investigated the prediction of success in men’s field hockey. The purpose of, group of skilled women field hockey players. Subjects were 106 players who participated international selection and training camps sponsored by United States Field Hockey Association during the summer of 1978. Five tests were selected to assess the predictor variables. A multiple discriminant function analysis was computed to identify those variables, which discriminated between the groups of selected camp participants. employed to assess the s of players according to their playing positions. The The Pearson correlation technique was utilized to determine the relationship between some selected predictor variables.

Battles, et al. (1980) investigated the Subjects for this investigation were 33 females who were participating in women’s basketball at three colleges in Florida; all were members of the FAIAW. Each subject completed a personal data form, the AMI, the Knox basketball test, Sargent jump test, and the field goal speed test. Selected anthropometric measurements were also obtained from each subject. Results of step-wise multiple regression indicated that players ranked high by head coaches tended to score high on a combination of physical and psychological variables.

Won, et al. (1988) studied the relative contribution of physical fitness and skill domain according to different skill level of handball players. Thirty three physical fitness and handball skill measures chosen from physique (6 items), muscular strength (5
items), muscular endurance muscular power (5 items), agility balance (3 items), flexibility cardio respiratory and handball skills (4 items) domain were tested on national representative (N= 21), University (N= 34), high school (N= 30) handball players. 9 physical fitness and handball skill domains were evaluated for each different skill level group. The result indicated that degree of contribution of total variance were increasing tendency from 44.17 % to 57.08 % as the handball skill level increased. It implies that higher skill level groups are more explainable from 33 measures chosen than the lower skill level groups. Physique, flexibility, cardio-respiratory endurance and handball skill domain were relatively high (11.50 % to 14.45 %), agility, muscular strength and endurance domains were moderate (10.65 % to 11.50 %), muscular power and balance domain were relatively low (8.88 % to 9.70 %). But these tendencies were not always same each different skill level group.

Tokunosuke et al., (1988) clarified the effects of the alteration of the rules on the exercise intensities, skills and tactics in the handball game. the game and VO2 max was determined by means of the step-wised aerometry. Distance that players ran and dribbled was pursued and recorded by the investigator. In the newly modified local rules, players must be throwing off from the goalkeeper line. Therefore, the time for the next commencement of the game was shortened. Owing to this change of the rule, it was found that the total distances that the players ran and dribbled, the number of shoots and the possibility of the fast break offense were increased. The average HR of the new local rule exceeded that of the international rule through the whole game. Though the HR of the new local rule remained unchanged through the whole game, the heart of the first period was reduced by about ten beats / min in 2 period in the case of the international rule. We estimated the exercise intensities of the players at the 90-98% VO2 max in the new local rule and the 75-90 % VO2 max in the international rule. The study concludes that the alteration of the rules in Japan was successful to facilitate the activations of the handball game, for example, the speed of the player; the offensive method and the number of shoot chance.

Millonzi, et al. (1973) designed, developed and validate a handball skill test. Twenty males from the university of Wisconsin and YMCA took part. The Ss competed
in two separated round robin tournaments containing 10 players each. Their rank order was determined by the results of these tournaments. The investigator then administered a devised skill test consisting of 23 tests to group one and the test items that correlated at 0.60 or better with the rank order were given to group two. Together ‘r’ criterion of 0.60 from group one and the rank order from group two resulted in a very higher ‘r’ of 0.93. Thus, making the final battery of test items valid.

Cotton, et al. (1986) studied of a Badminton clear test. The purpose of this study was to develop a valid and reliable badminton clear test to be used with male and female beginning badminton students. The experimental test was administered to sixty-one male and sixty-five female students enrolled in seven beginning badminton classes at Georgia Southern College. The experimental test consisted of two warm-up strokes followed by 20 trials. After testing was completed, scores were tallied using four different scoring systems and for 10, 15, and 20 trails. When the result was correlated with two criteria, judge’s rating and teacher rating, little difference was found among the four scoring system. Considering the high validities, the high reliabilities, and economy of the time when using 10 trails, it was decided that the test need consist of only 10 trails. Racquetball being one of the fastest growing lifetime sports, several weakness are associated with the available skill test

Harpreet, et al.(1988) formulated specific physical fitness tests keeping in view the falling standard of Indian hockey teams in international competitions. General physical fitness has been made the base of the selection of the players which is, however, unscientific because general physical fitness test do not measure the specific physical fitness for a particular game. The subordinate purpose assess the relationship of each physical fitness test to hockey performance. The subjects were 50 female Indian hockey players who played inter-University, state and national level. The dependant variable was hockey performance, which was evaluated by a panel of experts. The independent variable was evaluated through specific fitness tests constructed by the investigator. Suitable statistical procedure was adopted for computing the validity, reliability, and objectivity of the test battery. Analysis of the data revealed significant relationship of hockey playing ability to the test develops by the investigator.
Eio, et al. (1988) conducted this study with a view to clarify the factorial structure of physical fitness of Korean and Japanese college judoists and to establish a test battery of physical fitness including to find effective instruction methods. Twenty-one morphological and fifteen fitness measures were administered to 60 Korean and Japanese judoists in May, 1985. Principal component analysis and normal varimax were applied to the correlation matrix, which was calculated with 36 test variables mentioned later. Considering degree of contribution of each factor extracted, the ability space expressed as factor was constructed with the factors showing the significant degree of contribution to total variance. The results obtained were: 1) factor analysis revealed six factors viz., physique, static strength, leg, grip, and explosive strength. 2) Japanese judoists were superior to Korean judoists in physique and static strength. 3) Korean judoists were superior Japanese judoists in leg and grip strength. 4) In spite of the above analysis, however, a great deal of overlapping was found in distribution of Korean and Japanese college judoists groups.

Rasmussen, et al. (1970) conducted a normative study of the AAPHERD youth fitness test for boys in grade seven through ten in the state of South Dakota. One school was selected to represent each region or section of the South Dakota high school activities association. The number selected from each school was in proportion to the school’s enrollment. The AAPHERD youth fitness test was administered to 1000 South Dakota boys in grade seven through ten. Norms were established by computing every fifth percentile. The scores of South Dakota boys were compared with those of national boys using age only. The medians of South Dakota boys were compared with the median of national boys on each test item. The medians of South Dakota boys at all ages were higher than those for of national boys on all test items except the pull-up, the shuttle run, and the 50m dash.

Wangwad, et al. (2001) In a doctoral research assessing and evaluating the morphological variables (i.e. height and weight), physical fitness (i.e. speed, leg power and agility), and skills of volleyball, established a standardized norms for selection of junior volleyball team of state level. The male volleyball players (n = 272), below the age of 18 years, participated in Maharashtra state volleyball championship in 1998 were the subjects. This ensures that 100% population was covered. Standard procedure was
followed to conduct test items viz., standing body height (cm), body weight (kg), fifty-meter dash (speed), 4x10m shuttle run (agility), jump and reach (leg power), and volleyball skills (i.e. under hand pass, upper hand pass, serving, reception and service, set for spike and smash). The selection criteria as developed and standardized in this investigation is a reliable and valid, which can objectively assess the efficiency of volleyball players to get entry in state level junior volleyball team. The norms of the selection criteria were easy to grade that can discriminate talented volleyball players with optimum accuracy so as to constitute a standard junior volleyball team.

D'souza, at al, (1993) The physical fitness components considered for this study are strength CV endurance (50 m dash), agility (4x10m shuttle run), and flexibility The researcher proposed to administer the test on 4000 girls in the age groups of 13, 14, 15, and 16 years, taking about 1000 girls in each age group, from about 75 schools of all the 11 Talukas in Goa. Seven test items in the test battery were split up into two sets and were conducted on two consecutive days. The data collected on the subjects in respect of different physical fitness items, was utilized for constructing the Percentile scale, Sigma scale, and Hull scale. T-test employed for comparing subjects representing different age groups in various test items considered in the study. The level of significant was set at (13 to 16 yrs.) from the state of Goa. The subjects belonging to the 15 years age group were found to be significantly superior to that of 13 years age group in vertical jumping ability.

Debray et al. (1998) conducted study on Eastern (ER) and North-East (NER) region children to see the variations of these norms with the Indian norms, which are being used for talent identification throughout the country. Percentile norms of various anthropometric and motor quality variables were made from the sample of children of ER and NER of India. These norms were compared with the existing national norms for Indian children sports performance of the children of ER and NER in the national context. The percentile norms thus formed for ER and NER children are of great importance particular in talent spotting in these regions. These norms also provide relative chance of getting talented children in sports from the regions. It was observed that ER children’s are relatively more talented than their NER counter parts. The
children of NER may reveal better scores in the specific skill test exploiting their mesomorphic qualities.

Meitei, et al., (1996) attempted to explore the area of physical fitness and technical skill as possible reasons of the poor performance of Indian women shot-putters. The study was conducted on 25 women shot-putters of national, university and state level. The performance of the Indian women shot-putters was compared with the equivalent norms and found that the athletes are poor in technical efficiency, specific strength, specific and general speed and explosive strength. It was also found that maximum strength level is above the norms. But its conversion to explosive strength is poor. The following tests bench press, clean, squat, shot put standing (5 kg), shot put pull action (3 kg), 30m dash, shot-put standing and shot-put pull action (4kg) techniques, standing long jump, triple jump, and hops were suggested.

Singh, et al., (1987) for establishing norms of physical fitness for hockey goalkeepers administered the tests viz., side split, forward bend and reach, standing broad jump, shuttle run, 30m sprint, bent knee sit-up (30sec), push-up, and 1km run on 20 male state level hockey goalkeepers. Hull scale is. The result shows the mean age of the state level hockey goalkeeper is 28 years; average height is 168.8 cm and weight 62.60kg. The mean values of performance physical fitness: Side split (149.61±11.61cm), forward bend and reach (8.47±6.46cm), standing broad jump (224.8±20.95cm), shuttle run (10.27±0.38cm), 30m sprint (4.43±0.20sec), bent knee sit-up (30sec) (23.65±2.8), push-up (21.45±5.66), and 1km run (212.3±4.9sec). The norms as established were found reliable and valid.

Christian, et al. (1985) constructed and evaluated a soccer skill test. Forty-five male students were administered the soccer test battery. Fifteen subjects were selected randomly from each of the following sub-groups: Appalachian State University (A. S. U.) soccer team, A. S. U. intramural divisional championship teams, and A. S. U. physical education soccer classes. The criterion measures were judge’s ratings according to subject’s performance in passing, shooting, and heading during actual games played at A. S. U. The rater’s agreement (R=0.85) coefficient using ANOVA techniques. The
reliability and objectivity coefficient, which were determined with an intra class correlation coefficient using ANOVA techniques ranged from 0.90 to 1.00. Construct validity for each test was established using ANOVA for the known differences among performance groups. Results of F ratios were significant at the 0.01 level for each test performance when broken down by groups. The contrasted mean score differences obtained for the three distinct groups supports the assumed constructs of passing, shooting, and heading as logical and statistically valid measures for men’s soccer playing ability. Therefore, the score test battery appears to be a valid, reliable and objective assessment of passing, shooting, and heading skills for men’s soccer.

Hensley et al. (1982) investigated gender differences in performance on selected tennis skill tests and identified underlying components of tennis playing ability. Fourteen tennis skill tests purporting to measure the fundamental skills required of a beginning level tennis player, were administered to 36 males and 44 females enrolled in a beginning tennis class at the collegiate level. They were then analyzed by the following factor-analytic techniques for each sex groups and for the combined sample: alpha factor analysis, canonical factor analysis, and maximum- like hood factor analysis. It may be concluded that the tests selected in this study were measuring the same skill components and consequently, were not sex biased. However, since gender differences in mean performance were detected, it is suggested that separate performance standards would be appropriate.

Chill, et al. (1978) developed a skill test for squash racquets. 10 specific test items, relative to the essential squash skill as noted by experts, were developed and included. 66 male and 41 female students participated. Validity was examined construct and concurrent validity procedures and objectivity was assessed by intraclass procedure. Multiple R used to determine the most efficient test battery. The test is found reliable and valid.

Aichele, et al.(1978). The study explored the possibility of developing a regression equation where by football ability could be predicted from an analysis of selected anthropometrical measures, strength tests, balance, standing height, and body weight. Ss are 56 scholarship football players at USA. 6 assistant football coaches, 3 offensive and 3 defensive, rated each offensive and defensive player respectively. This
rating football ability was used as the criterion measure. Step-wise multiple regression and polynomial regression was utilized to form predictive equations.

Walford et al. (1969) constructed battery of ice hockey skill tests. Six test-items were formulated for the purpose of measuring selected basic skills in ice hockey. The test retest method indicated four test-items as reliable. Validity coefficients for each of the four tests when compared to the subjective ranking in each skill ranged from 0.75 to 0.96. Inter correlations were computed among the tests. It was concluded that an ice hockey test battery should include at least three of the test.

Shick, et al. (1970) developed a battery of defensive softball skill tests for college women (n=59). Reliability coefficient of the test was reported as statistically significant (r=0.88). However, validity coefficient was obtained as 0.75 when tests scores were compared to ratings of defensive softball playing ability.

Digennaro, et al. (1969) constructed and developed a battery of tennis skills test in a manner that would serve as a model for test construction. A series of 12 procedures was outlined and followed in the, and service tests of accuracy in placement for novice tennis players, referred to as the TTA (Tennis Test of Achievement). Male volunteers (n=64) at the beginning level of tennis ability participated in an appraisal of the test. Reliability coefficient was ascertained by the test-retest method. A predictive validity coefficient was produced. The acceptable reliability and validity coefficients ensured the applicability of the test.

Lozovina. et al. (1999) examined the differences between two groups of elite athlete’s anthropometrics measurements. The groups were from sports of water polo and rowing. Subjects were measured with set of 18 anthropometric measurements. Multivariate analyses on manifested measurements as well as on scores on latent dimensions were employed to analyse the differences between the groups. Differences were based on differences in measurements that can be attributed to muscle tissue and fat tissue, which were both in favors of water polo players. There were no differences in measurements of skeleton except for the measurements of bicrystal width and leg length. Different training procedures and different surroundings in which activities were taking place cause the differences. No differences in skeleton measurements were the consequence of the selection process.
Sidhu L.S. et al (1999) from Punjabi university Patiala examined the six-skin fold measurements (biceps, triceps, forearm, Sub-scapular, suprailiac and calf) were made on 157 track and field athletes (42-throwers, 35- jumpers and 80-runners). The range of ability (Highest level) from states through intervarsity to district (lowest-level), 81 subjects acted as controls. The throwers possessed significantly more fat at all six measurements sites than the jumpers and runners. The jumpers and runners did not differ much from each other. With the increasing levels of competition a trend of an increase in fat was observed in throwers and a decrease in jumpers and runners.

Poteat, et al. (1985) developed a skill test battery to determine overall racquetball playing ability of male (n=54) and female (n=53) college students. The subjects from beginning racquetball classes were determined two trials of the test. 43 subjects (Ss) were then re-administered the test to determine stability reliability. All items in skill test battery were found to have moderate to high internal consistency reliability, stability reliability, and concurrent validity. 48 Ss were evaluated by a panel of three experts on predetermined criteria. The ‘r’ of a individual test battery items and the corresponding score by the experts were high (r0.75, -0.84).

Gaut, et al. (1981) studied the factor structure of basketball playing ability in developing a skill test. The battery of twenty experimental tests representative of the dimensions of passing, shooting, jumping, moving without the ball, and moving with the ball was administered to 167 high school female basketball players. Based on the findings of the study, the hypothesized dimensions of basketball playing ability were not supported. The multidimensional model resulting from this investigation is reliably represented by dribbling, explosive leg strength, lay-up shooting, and passing.

Beiter, et al. (1981) predicted football playing ability by using a motor performance test which was constructed on 46 players. The 18 tests included measurements of strength, power, speed, agility, and body composition. All raw data were converted to T scores. Multiple regression analysis indicates that possession of speed, strength, and size does not guarantee success in highly skilled game such as football.

Kuhaja, et al. (1970). A skill test for the riposte lunge in fencing was constructed and administered to 38 women enrolled in beginning fencing classes by A wall target
was used to measure riposte lunge. The test required parrying 4 by touching a vertical target, riposte, and lung towards the wall target. A total of five trails on each of two days were given. Analysis of data indicated that the test was an objective, reliable, and valid measure of the riposte lunge in fencing.

McDonald, et al.(1969) developed a skill test for measuring success on Badminton high clear. College women (n=119) at 2 levels were tested. Test reliability for 12 methods of scoring for the whole group ranged from 0.73 to 0.83. F ratios indicated a highly significant difference between the 2 groups on all 12 variables. Scores on the test were correlated with results on a bigger tournament and ranged from 0.63 to 0.74.

Cavala et al (2005) studied on comparison in motor and psychological characteristics related to playing positions were analyzed on subjects of fifty three elite female members of junior and senior national teams. Motor status included eight variables for determining the explosive strength of landing and throwing, speed strength, agility, movement frequency, and flexibility. Psychological status was analyzed through four extents according to Eysenck: psychotic behavior, extroversion, neurotic behavior, and lie. The anthropological features showed statistically significant differences. Considering motor abilities differences were found in the attributes for assessment of speed, agility, strength and leg movement frequency where wings predominated. Whereas goalkeepers found prevalence in flexibility. In psychological standing, differences were found in the variable for assessment of extroversion, which was most prominent in wings, whereas psychological actions were more prominent in those at pivot position. The differences were primarily significant to the selection of players of a specific anthropologic characteristic for particular playing positions. The hypothesis of the effect of kinesiologic point of view a particular playing position on the formation of players’ anthropologic profile should be scientifically approved. Study results may observed application in training and contest practice, especially in forming anthropologic models for particular positions during the process of player selection.

Hopkins et al. (1974) developed a wall volley test for skilled male lacrosse players. The Ss (n=39) for this study were college varsity lacrosse players with two or
ore years of experience from four N. E. teams. All Ss were administered a test of stick
handling ability. Each Ss score was based upon accuracy as well as the number of
times the ball hit the wall. Six trails were given. The reliability of the test was 0.97, and
rho was found to be 0.65. The ‘t’ test was focused to be significant (p<0.01) indicating a
difference in test performance between the two groups.

Green, et al.(1973) A battery of golf skill tests for college men (n=49) was
developed by. The test consisted of six golfing skill tests. Then 66 college men were
used to validate test batteries using the 36 holes score as criterion. Step wise multiple
regressions were employed. The best single predictor was the middle distance shot
(r=0.658). The best two-item battery was middle distance shot and the pitch shot.

Chappell, et al. (1972 )A standardized and utilitarian battery of test items that
could be used as an aid in selecting players, equating teams, grading, and measuring
progress or for motivational purposes). Male 9th grade students (n=58) at a SHS were
tested on a battery of 8 test items and measured on certain anthropometric items, the
results from which were correlated with a subjective rating by coaches on the subjects’
(Ss) ability to play basketball in the game type situation. A 0.73 correlation between the
composite 8 items battery scores and subjective rating were found. Therefore, 8 items
test battery be used as standardized basketball battery. Factor of age, and weight were
relatively unimportant to the criteria.

Harrison, et al. (1970) developed a test to measure basketball ability for boys.
Validity and reliability of a battery of a 4 basketball skill tests for physical education
class were determined. Boys from each grade (7-10) (n=100) and 23 members of a
varsity basketball team were administered the proposed battery. Using test-retest
method, reliability coefficients for the battery ranged from 0.91 to 0.97, and the reliability
coefficients for the individual tests ranged from 0.72 to 0.96. A validity coefficient
recorded as 0.89. Therefore, the proposed basketball skill test battery was considered
to be valid and reliable.

Kamlesh, et al.( 1994) Delimiting the problem is not at all possible without
proper view of related literature, which goes a long way in economizing efforts,
time and cost. Literature review converts the tentative problem into a specific one
and makes the researcher’s focus, his attention on to the specific aspects of his problem. It simplifies the road to understanding of the aims and objectives of the problem. As a source of enlightenment and inspiration, review of literature makes the researcher self-confident to accept challenges, remove misgivings and misconceptions about the problems in the minds of others and uphold his assumptions. Review is a medium through which the researcher weaves an enduring texture of his problem. The investigator before finalizing the reports on the review of the literature for this study went through the reference materials, encyclopedias, dissertation, sports association’s documents, newspapers, journals, magazines, books, articles abstracts and internet generated materials. After going through a number of primary and secondary sources of information, the researcher found that administration and sports were an important area to be concentrated upon as it leads to well constructed organization and its efficient functioning. However, the present research work has not been undertaken in isolation of the work that has already been done on the problem, which is directly or indirectly related to this study.

Weber, et al, (1983) took 559 runners for the purpose of investigation, who were participating in a people’s run and were selected randomly to inquire about their motives and experiences and about the effects of running. The average age was 38. They had been running for more than five years. An average runner ran six hours a week. The most important results were that regular and intensive running brought profound changes. It brought positive influences on one’s general mood, sense of self and fitness and outward appearance. The motive of spiritual compensation had an overwhelming significance for the regular runner. Fitness and health appear as ancillary motives.

Huddleston, et al. (1983) also conducted a recent investigation on participation motivation, of young athletes. Specifically participation motives of 720 boys and 418 girls attending University of Iowa: summer sports schools, in basketball, baseball, golf, gymnastics, football, wrestling, tennis and track, was examined. Results revealed that to improve skills, competition, fun, and learning new skills, being fit, and challenge are the most important factors. Factor analyses on the important ratings were also calculated separately for boys and girls. The total analysis suggested that the
factors of success, team atmosphere, friendship, fitness, energy release, skill development and fun were the basic participation motive dimensions for the young athletes. However, female were found to be different from males nine placed only a little important to achievement and status factor, rating in contrast to the male counter parts.

Shephard, et al. (1985) examined whether personal factors influence participants decisions to begin and continue exercise programmes. He conducted and summarized three surveys, the Canada Fitness Survey, Toronto Life Assurance Study and General Food Study. Results from the Canada Fitness, the Survey indicated that the 13,500 individuals preferred individual sports such as walking and cycling to other activities, especially, structured exercise classes. Forty percent of the individuals indicated they would participate in physical activity if they had more time, because it makes them feel better and recreates them. Females also “valued the benefit of weight control and improved flexibility. Workers in Toronto (N = 1800) completed Kenyan’s Scale. Five groups of individuals high and low adherents, dropouts, non participants and controls all reported the same four values for physical activity: Catharsis, Aesthetics, health and social contacts. Workers in General Food Study reported similar values for physical activity. They noted that exercise was valued for health, fun, socialization, enhanced physical appearance and the development of self-discipline. It may be premature to draw persistence in an exercise program”. However, the author suggested that all participants would be more likely to join the exercise programmes if a wide range of activities are offered and incentives are provided to join such activities. Participants may be higher in exercise programmes if external incentives (e.g. Money, T-shirts etc.) were given until the exerciser reaches the fitness level at which intrinsic rewards of exercise were visible to him/her.

Sharmaet, et al.(1987) motives for participation in sports wing and competitive sports activity of 100 male sports wing players representing five colleges and Punjab University Campus. The players belonged to handball, table tennis, badminton, lawn tennis, athletic, basketball, cricket and wrestling. On the basis of importance rating they found that most of the players wanted to be physically fit, improve their skills; learn new skills, their last preference being to get out of the house.
They developed nine factors on the basis of factor loading and clustering of motives; their first factor was identified as social factor, second career making, third team atmosphere, fourth fitness, fifth recognition, sixth, competition, ninth facility. However, they failed to recognize seventh and eighth factors.

Duda, et al. (1988) examined the relationship between goal perspectives and selected motivation behavior (i.e., persistence and intensity) among intra-mural league participation. Persistence was defined as the number of years of participation in the sports whereas intensity was optimized as the hours and weeks spent practicing the recreational sports in the student’s free time. Results indicated that greater persistence and intensity corresponded to the student’s emphasis on task involvement in sports.

Robert, et al. (1989) investigated motivational outcomes consequent to participation in physical fitness testing procedure. Seventh and eighth grade school children (N = 165) were administered on the intrinsic motivation inventory before and after participating in a fitness test where they received bogus positive, negative or no verbal feedback (control). MANOVA and casual modeling procedures revealed that positive feedback increased intrinsic motivation while negative feedback decreased it. Analysis showed that changes in intrinsic motivation were mediated by change in perceived competence. In a second experiment seventh and eighth graders (N = 370) participated in either the president's challenge or the FITNESS GRAM fitness tests. Because of their different evaluative procedures and incentive schemes, it was hypothesized that these tests would have different effects on intrinsic motivation, MANOVA and ANOVA revealed no significant differences between fitness test groups on intrinsic motivation or physical self worth. However, there was a clear gender effect on the perceived competence aspect of intrinsic motivation and self worth. These results partially support the case for applying the trends of cognitive evaluation theory and reflectance motivation theory of fitness testing situations in order to provide threats to intrinsic motivation.

Duda, et al. (1989) persistence in sports among 871 high school students. In accord with recent cognitive motivation theories, two major goal perspectives were
assessed, i.e., involved or social comparative perspective. (1) those involved in organized and recreational sports, (2) those involved in organized sports only, (3) those involved in recreational sports only, (4) those that dropped out of sport and (5) those who never involved in sports. Each subject indicated his/her preference for sports success and failure, which was mastery/social, comparison-based and oriented to the individual/group. MANOVAS and discriminate analysis revealed significant participation group differences with the organized sport only and organized/recreational sport participants indicating greater preference for each goal perspective than dropouts and non-participants. Further results indicated that dropouts, non-participants and those subjects presently involved in organized sport only placed less emphasis on mastery-based success than social comparison-based success. Dropout and organized sport participants had the least preference for social comparison failure. These findings reveal how an emphasis on social comparison goal (and de-emphasis on mastery goal) might lead to a lack of persistence in athletic contexts.

Ahemed Ali, et al. (1989) determined the differences between American and Jordanians. Youth sports programmes and examined these factors in achievement motives that might discriminate between American and Jordanians in terms of perceived competence, perceived control, extrinsic/intrinsic, motivation and achievement goal. The samples consisted of two groups: sixty-five Americans and sixty-seven Jordanians. Both samples consisted of male and female participants and dropouts between the ages of 11 and 17 years. Questionnaires were administered to the American sample, while data for the Jordanian sample was utilized through systematic stratified selection process form earlier study in 1986. The most important reasons that the Americans assigned for sports participation were to have fun, linking to improve skill and liking to learn new skills. For the Jordanians, linking the team’ spirit, linking to be popular and linking to travel were the most important reasons for participation in sports. Both American and Jordanian dropouts however laid down emphasis on winning and losing and the lack of fun as the most important reasons for dropping of sports programmes. There was no significant difference found between Americans and Jordanians in the factors of Achievement Motivation for
sports participation. However, one factor that emerged out from this investigation was that the Americans were more task and independence oriented while the Jordanians were found to be more ability and social approval oriented. It was concluded that Americans and Jordanians had different reasons for participation and similar reasons for dropping out of the sports programmes. There were no significant differences found between the two groups in Harter’s (1978) achievement motives model, while some differences were found in the terms of Maehr and Nicholl’s (1981) Model of achievement orientation. Americans were found to be more social and ability goal oriented.

Leston’s, et al.(1983) participation motivation inventory (PMT.C). A factor analysis utilizing the PMI.C responses resulted in ten interpretable factors: competence/competition, fun/excitement, team orientation, fitness, energy release, social activity, friendship future carrier pursuits, family influence and achievement/rewards. The result of a 2*2 (school type by gender) multivariate analysis of various using these factors score showed significant main effect for school types, F (10, 399) =27.54, P.L. 001 and gender, F (10, 394) =4.84, P.L.001. .

Hermans, et al. (1975) found that stress situations induced performance deterioration in some performers and stimulated others to do better. He also showed that under stress situation the approach tendencies, labeled positive fear of failure, and the stress avoidance tendencies, labeled negative fear of failure, were partly related to child rearing.

Anshe, et al. (1979) studied the effects of consistent positive and negative feedback on motor performance and a shift in locus of control. Comparison of data was made on the basics of age (I-E) disposition. External internal and external participants were offered positive or negative feedback on a rotary pursuit motor task over 20 traits, twice per week for 6 weeks (a with total of 240 traits). The results of this were as (a) all eight grade (13-years old ) students displayed superior motor skills performance as compared to fifth grade (10 years old) students (b) subjects across age groups who received positive feedback performed better than subjects given negative feedback; (c) a significant locus of control by feedback interaction indicated that high internal were superior to high external under positive feedback
conditions but that negative feedback produced inferior performance by internal compared to heightened performance by external; (d) older subjects were more internal than younger subjects based on locus of control questionnaire data both prior to and immediately flowing the 6-week experiment and (e) neither of age groups demonstrated a significant shift in locus of control in respected to both positive and negative feedback conditions.

Hallwell, et al. (1986) offering a best performance award on a stabilometer task of fifth and sixth grade French – Canadian boys in tournament investigated the effects of competition on perceived competence following performance on a 4-point scale. Intrinsic motivation was operationalized as initial task choice and time spent on the stabilometer during a post experiment free choice period. Results indicated that losers were less intrinsically motivated and were perceived to be less capable than winners. Motivational differences were reported when three performance levels of male tennis players were compared on variable through

Butt’s et al.(1987) sport protocol in his study of motivational patterns in Davis Cup, University and Recreational Tennis players were studied. The sample of forty six participants in the study represent: (1) An elite group of players of Davis Cup Calibre (Current or ex-Davis Cup players): A University Competitive tennis team and (2) A group of recreational players. The psychometric properties of scales and their inter correlations are reported. Multiple - range test yield significantly different levels of ambition, aggression, completion and control between the groups with elite group scoring most highly on all variables. The implications of the study for both theory development and applied sport psychology are evident.

Higgs, et al. (1989) found that motional factors influencing the performance of elite women athletes were identified by profession women tennis players and professional women bowlers. Data was collected by means of modified ethnographic technique involving the use of open ended interview; the recorded interviews were transcribed and analyzed in depth to determine if any recurring themes enlisted. Motivation influencing the performance of elite women athletes was found to
differ according to the sport participation and was dependent on athlete’s initial present and future involvement with the sport. The result of the study provided qualitative information about the area of motivation with in the world of professional women athletes.

Morinanda, et al. (1990) explored the theory of cognitive evolution in a study of African handball players. The purpose of the study was to examine positive feedback paired with a monetary reward, no decrease in intrinsic motivation for handball players resulted when negative feedback was used alone on with a reward; however, a significant decrease in intrinsic motivation was in evidence. In a second experiment, the effects of choice and feedback or motivation were examined across time. Handball players were in choice versus on choice and positive versus negative feedback condition for team exercise. Immediate increases in motivation were because of feedback and were mediated by choice. After three weeks, an increase in type of motivation for the task was primarily found in those groups who had experienced positive feedback and choice in task selection. These studies suggested that factors which affect either the perceived locus of causality of one’s behaviour or feeling of competence also impart on participation and enjoyment in sports. They also showed that intrinsic motivation required more than efficacy feedback and it also requires support for determination.

Seiler’s, et al. (1992) review presents psychological performance enhancement training practice, taking into account the requirements and prerequisites, the target populations, the specific uses and generally applied training schedules. Further directions in psychological performance enhancement training are suggested with respect to the needs for evaluation and practice consideration.

Kaur, et al. (1994) conducted a study on the assessment of motivation in sports participation and performance of Punjabi athletes. She applied two participation and performance scales on 100 athletes who were randomly drawn from different sports disciplines. She applied factor analysis technique for its validation in the second phase and conducted final scales test on 600 subjects to ascertain the results norms of her study. She claimed that the test inventories analyzed by her meet the
criterion of scientific authority city and that the analysis of these inventories could also be applied to the sports population of Punjab state and Union Territory Chandigarh. An international approach was employed to investigate why adults participate by taking into account the interaction of gender and type of physical activity in which individual were involved. The subject included 422 adults who were enrolled in a university service physical education programme. The importance of various participation reasons was rated by individuals involved in martial arts, swimming, tennis, volleyball, weight training and yoga. A factor analysis revealed that the participants engaged in physical activity for interdependence, personal, satisfaction self-image and instrumental reasons. Furthermore, a MANOVA, using factor scores as the dependence variables, revealed a significant gender by activity interaction. The importance of interdependence as a reason for participation differentially varied for males across the six activities. Results of this study are discussed in terms of further research and practical implication.

Martin, et al. (1995) examined trait and state psychological variables with male Filipino marathoners (n=41) using an achievement motivation model. Correlations revealed that trait sport-confidence was positively related to outcome self-efficacy and competitiveness, predicated place goal importance whereas, competitiveness and goal importance. Performance self-efficacy was associated with time goal importance whereas, it’s outcome self-efficacy was associated with time and place goal importance. These results indicate Filipino marathoners were generally quite competitive and confident in sports and had levels to win the goal similar to American athletes. This study also supports a relationship between competitive orientation and goal importance and that runners possessing high performance, self-efficacy had important time goal whereas runners with strong outcome self-efficacy had important time and place goals.

Darren et al. (1998). Brief about success and sources of satisfaction in B.B. were examined by The study examined the concomitants of mastery and performance oriented perception of the climate, and then assessed the contribution of both types of variables in predicting 274 female adolescent athletes beliefs about the causes of success and source of satisfaction followed
by a weeklong residential B.B. competition participation perceiving a mastery oriented climate had a stronger belief that success follows from one’s own efforts and derived satisfaction from mastery experience. Participants perceiving a performance oriented climate derived satisfaction from outperforming others and attributed success to ability and deception. Moderated hierarchical regression analysis revealed a difference main effect as well as significant interaction effects between goal orientations and perceptions of the motivational in predicting the participant responses. The results of the study added further supports to the argument that mastery oriented contents should be stressed; the findings also suggest that goal-orientation and the interaction of these two dimensions of motivation must be taken into account when examining youth sports experience. On the other hand, the basketball players who perceived a performance oriented climate stated that they derived their satisfaction from normative success namely being better than others. If an individual effective success namely being better than others. If response to an achievement activity is derived from our performance, others it would be expected that this lead to motivational difficulties if he/she is unable to achieve this goal.

Furst, et al. (1985) studied the relationship between the sports achievement attribution and related situational variables. The study was constructed to delineate the. Athletes participation in team sports (N=94) and individual sports (N=44) were given the Wingate Sport Achievement. Responsibility Scale (WSARS) in neutral situations and the Casual's Dimensional Scale (CDS) following the competition. They also rated their own ability levels. The results revealed that the individual athlete’s assigned unsuccessful sports events more internally than the team athletes; a similar tendency was also found in successful events. Following the competitions, individual sports athletes assigned the cause, more internally than team athletes. Team athletes rated the first cause as more controllable. Winners assigned the cause as more stable, controllable and partially more internal than losers.
The higher the perceived ability, the more regarding the indices of asthma morbidity re internal the responsibility for both successful and unsuccessful sports events and more internal, stable and controllable following competition. Athletes in successful events, tended to rate the cause following a win more internally than their counterparts. Athletes in unsuccessful events, tended to assign the causes following loss more externally, but the difference did not reach significance level. Further, it was found that the athletes internal in achievement responsibility on successful events not significantly more internal, following a win than their counterparts.

Kamlesh, et al. (1987) studied the level of sports achievement motivation through inter-collegiate female players (N=43) belonging to various games (volleyball=12, hockey=19 and others from kho-kho, football, kabbadi, gymnastic and track and field=12). to the subject's convenient size group. a moderate level of sports achievement motivation. No inter sports differences on the level of achievement motivation were reported.

Rudisill, et al. (1990) The subjects were asked to perform the four test trial blocks (in total 8 test trials) on three different motor tasks (throwing for accuracy, standing long jump, sit and reach). Each subject was randomly assigned with one of the four achievement goal setting orientation groups, (i) task master (ii) competitive (iii) self goal. or (IV) no goals group, significant results were found for expectancy, persistence and performance. The results related to expectancies showed a goal-orientation group main effect for all three tasks. The mastery group had a highest expectation for all the three tasks. Significant results were also found for persistence for the jumping Overall, all results of this investigation have provide support for ‘mastery goal-setting’ for children. It appears that when an individual is provided mastery on achievement goals, cognitive and behavioral factors are positively affected. On the other hand, it appears that competitive ability achievement goals do not have the positive effects on achievement motivation when the goals are not achieved.

Weaver, et al. (1990) studied the relationship of college student's achievement motivation to finally cohesion and aspiration: An analysis by race and gender. An inappropriate sample of 611 whites, black, Asian and Hispanic under-graduate students of the Maryland College Park responded to a mailed questionnaire.
Achievement motivation included orientation towards work, intellectual mastery, competitiveness and fear of success. Aspiration assessed the amount of educational desire, the ideal number of children and the importance of marriage. Family cohesion was measured through sub-scales from the family environment scale.

Descriptive statistic, chi-square test, Pearson

Kaur, et al.(1992) studied psychological variables. One of the psychological variables studied by her was Sports Achievement Motivation. The sample consisted of 160 college level and 160 university level athletes selected randomly from these universities of North-west India. The events included basketball, volleyball, hockey and handball. The sports achievement motivation test developed by

Hayashi, et al.(1996) conducted the study of Semi with Hawaiian’s (N=5) and Anglo-American (N=5), who resided in the mainland of US and in Hawaii. Result of the content analysis revealed that all the respondents defined positive and negative experiences in physical activity through task and inter-dependent perspective, individualistic and co-operative reward structured. Cultural differences were also detected as Hawaiian’s defined positive activity experiences based on the demonstration of pride. These findings suggest the need for more cross-cultural research in psychology to validate the theoretical constructs.

Kumar, et al. (2003) tried to identify the differences between achievement motivation and selected personality traits of University volleyball and University level sports persons did not differ much in relation to personality traits and achievement motivation, and sports achievements motivation should be viewed as separate concept instead of viewing with one’s personality

Stepnica. et al .. (1965) studied the relationship between somatotype and motor manifestation. The relationship between somatotype components and motor performance in adult is expressed by means of correction analysis. Youths were categorized into zones with regard to motor performance. The most physically efficient were in fourth zone with whom was recorded the best body posture and the high motor activity. There were more motor-talented individuals among them. Most of the children attending training in top sports centers are included in the fourth zone. The pupils included in the first (endomorphs) and the second (ectomorphs) zones score the lowest
physical performance and appear to have poor body posture. It was concluded that somatotype is a morphological predisposition of motor and sports efficiency, as well as body posture.

Heath et. al. (1967) young adults (23 males and 31 Females) aged 14-22 yrs. (Tanner and Whitehouse, 1982). Genotype rating was made by Tanner (T) criteria of Sheldon (1954). Phenotype ratings were made by heath (H) using the Heath and Carter (1967) method. Means for males were; age = 19.1yr; Somatotype (T) = 2.9 - 4.2 - 3.6; SAM. (T) = 1.9; Somatotype between somatotype means, somatotype by category. The r's were 0.91 (endomorphy), 0.78 (mesomorph) and 0.86 (ectomorphy). Means for female were; age = 18.2 yrs; Somatotype (T) = 4.7 - 2.8 - 3.7; SAM. (T) = 1.5; Somatotype (H) = 4.6 - 3.6 - 2.7; SAM. (H) = 1.6. There were difference between Somatotype means, Somatotype by category and H rating were higher than T rating. Component means were 0.80 (endomorphy), 0.46 (mesomophy), and 0.84 (ectomorphy). It is concluded that there are greater differences between methods for young females than males.

Sodhi et al. (1987) In another study by 97 Indian volleyball players were divided into four groups-National men (N = 12), State (N = 21), National University (N = 27) and District (N = 25) groups. The volleyballers in each group were compared with control group (N = 25), as well as the champion reported elsewhere. Each subject was examined with 12 anthropometric measurements and 10 tests of performance. The results of the study revealed the three groups of volleyball players and the controls, with a persistent decreasing gradient in most of the variables, in the order as mentioned. In Somatotype the volleyballers on the whole possessed less rating of endomorphic component than the controls. Among volleyballers only district level players had shown significantly higher value of endomorphic component than that of the state. In the mesomorphic component the control sample showed rather higher rating than the volleyballers of each group. In the ectomorphic component volleyball players were observed to be more lean and thin than the controls. Contrarily among the different groups of volleyballers the ectomorphic component showed non-significant results with the sole exception of national volleyballers who scored more on ectomorphic scale than
the state. However, on average the volleyballers in each group were meso-ectomorphic in their somatotype.

In all the physical performance tests, except 2.4 km run the national players were the best, followed by the state, the university, the district players, and the controls with a descending gradient of performance. Overall the national level players were the best among the volleyball players and volleyballers as a whole were better than the controls in this regard. The information provided there in can be used as a criterion for evaluating the performance status of different levels of volleyballers in India.

Mohamed et al (2012) studied anthropometry measurements, which volleyball and handball, from Egyptian juniors in the age from 15 to 18 years, by moving from diversity and abundance which are represented in the original anthropometric included in the study to the few that are in clusters or common factors derived from the study for each sports the same search every individual and determine the number of anthropometry measurements under search - included in the analysis - to a smaller number depends on the amount of factors saturates joint derived from the analysis, which may provide researchers and trainers time and effort when trying to apply these anthropometry measurements for the selection of juniors and identifying the anthropometric factors associated with each sport, volleyball and handball, separately and the name of these factors and hypotheses of the research building factorial analysis of forty-four anthropometric measurements and identify the most important standard anthropometric factors in both volleyball and handball and find the statistical differences the function in the most important measurements anthropometric between volleyball and handball for volleyball. The investigator used the descriptive manner, the survey, as an appropriate method to find the objectives of the study, as the factorial analysis was used by researcher as a picture approach, descriptive. The subjects included sixty one (n=61) juniors, divided into 25 of volleyball and 36 of handball players. Random sampling method select some Egyptian juniors in volleyball and handball those were registered in Egyptian sports federations of the two sports. The investigator applied the forty four anthropometry measurements under on a pilot study, on the number of 30 juniors were selected from junior and outside the sample basic research and that was at fifteen juniors of volleyball, fifteen juniors of handball and be credited to the validity and
reliability of the measurements of anthropometric, has made transactions stability elevated limited between 1 to 0.934, and all statistically significant at 0.01 level, which indicates the stability of measurements. The findings of recycling factorial orthogonal for a class volleyball revealed the admission of 5 main factors, 3 factors expatriates, that the findings of recycling factorial orthogonal to the category of handball revealed on the acceptance of 3key factors, 5factors other than pure, that the results of recycling factorial orthogonal to the category of volleyball revealed for the admission of five key factors are: along the lower limb lengths and offers some parts of the body, circumference of upper limb, obesity of the upper part, of the lower limb and three factors expatriates, that the results of recycling factorial orthogonal to the category of Handball revealed on the acceptance of three key factors are the breadth, obesity and circumferences and five factors other than pure, there are significant differences in the abstract level 0.01 between both volleyball and handball from the results of anthropometric measurements, the values of "t" calculated ranged from -0.77 to -22.17, in light of the purpose of the research and the limits of the sample and on the basis to refer to the findings and conclusions, the investigator recommends that the anthropometric measurements, resulted from the current study, are among the most important foundations which take into account when choosing players of volleyball and handball.

Conclusion:

After review of related literature, researcher has concluded that no research similar to his research topic has been done in the field of handball. His research topic is different than other research