Review of Literature

Rathore et al. (2012) The purpose of this study will to compare anthropometric measurements between handball and volleyball players at college level. A total of thirty (N=30) subjects were selected from St. Joseph College of Physical Education, Moolamattom. In each group Fifteen subjects were selected from volleyball and handball group. The age of subjects ranged from 17 to 25 years. For this study, the selected variables were body weight, standing height and chest circumference. Data will obtained with the help of electronic weighing machine, stadiometer and non-stretchable measurement tape. The researcher followed Standard procedures during collection of data. For the analysis of data, independent ‘t’ test will employed with level of significance 0.05. The result of the study shown insignificant differences in body weight and chest circumference. However, in case of standing height, significant differences were found between volleyball and handball players.

Anis et.al. (2009), studied anthropometric, physiological, and performance characteristics of an elite international handball team. Twenty-one elite handball players were tested and categorized according to their playing positions (goalkeepers, backs, pivots, and wings). Testing consisted of anthropometric and physiological measures of height, body mass, percentage body fat and endurance (O2max), performance measures of speed (5, 10, and 30 m), strength (bench press and squat), unilateral and bilateral horizontal jumping ability, and a 5-jump horizontal test. Significant differences were found between player positions for some anthropometric characteristics (height and percentage body fat) but not for the physiological or performance characteristic Strong correlations were noted between single leg horizontal jumping distances with 5-, 10-, and 30-m sprint times (r = 0.510.80; P < 0.01). The best predictors of sprint times were single leg horizontal jumping with the dominant leg and the distance measured for the 5-jump test, which when combined accounted for 72% of the common variance associated with sprint ability. In conclusion, performance abilities between positions in elite team-handball players appear to be very similar. Single leg horizontal jumping distance could be a specific standardized test for predicting sprinting ability in elite handball players.

Visnapuu et.al. (2007) reported that in handball and basketball the longer the finger length the better the accuracy of the shot or throw. All shots and throws are finished with the wrist and fingers. It can be proposed that athletes with longer fingers and greater hand surface parameters also probably have greater grip strength. The aim of this study will to investigate the
influence of general body and hand specific anthropometric dimensions on handgrip strength in boys participating in handball and basketball training. In total, 193 boys aged 10-17 years participated in this study. They were divided into 6 groups: 10-, 11-, 12-, 13-, 14-15-, and 16-17-year-olds. The body height and body mass were measured and body mass index will calculated as general anthropometric parameters. The outlines of the hands of the boys were drawn on paper with a thin marker. Three groups of hand anthropometric parameters were measured: 5 finger spans, 5 finger lengths, and 5 perimeters of the hand. Handgrip strength will be measured on the dominant hand with a Lafayette dynamometer. As a rule, general anthropometric parameters determined the maximal handgrip strength more accurately than did specific hand anthropometric parameters. From the specific hand anthropometric parameters, finger lengths and perimeters of the hand significantly correlated with the maximal handgrip strength. In summary, fingers are the smallest, lightest parts of the motor apparatus, and, therefore, they represent the parts most easily deflected by force from the ball, but at the same time, finger control is especially important for the accuracy of different shots, both in handball and basketball. Thus, it is especially necessary to measure finger length and perimeters of the hand for practical reasons.

Gould et al. (1983) conducted a study on 446 junior elite wrestlers participating in a National tournament in the United States. Gould et al. found major differences in the degree of competitive stress reported by the wrestlers. In comparison to the high trait anxious wrestlers the low trait anxious 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.

Orlick (1986) says that, when consulted with coaches, he found that the first concern to be discussed will, almost always, the psychological preparation for the competition. He often had the feeling that, the will the most critical issue because; it will one that confronted coaches and athletes almost daily in the training, outside training, while traveling and in competitive.

Singer (1980) examined that relationship between anxiety and learning. He described this relationship as an inverted U hypothesis, which states that performance improves with the increasing level of anxiety to an optimum point, where upon further increase in anxiety causes performance impairment.
Marten (1982) study conducted on four sample of Volleyball team found subjects scoring high on Achievement Motivation (Mehrabian Scale) are low in fear of failure and high in need achievement. Same way subjects scoring low on Achievement Motivation Scale were found high in fear of failure and low in motive to success. The study further concluded that there will no significant relationship between sports competition anxiety and achievement motivation.

In a study conducted by Boon (1977) the relationship of arousal and anxiety with gymnastic performance will investigated. Pulse rate and palmer sweating were utilized as indicants of arousal. Anxiety will assessed by means of the State-Trait Anxiety Inventory. The Ithaca college women’s varsity gymnastic team (N=18) will tested during the 1973-74 Season. The inter-correlation matrix of all variables, pulse rate, palmer sweating, state anxiety, trait anxiety and gymnastic performance revealed limited relationships between gymnastic performance and arousal/anxiety measures.

Singh et. al. (1986) studied the anxiety difference between male and female handball players of intervarsity level. 73 (male 36, female 37) subjects comprising 6 teams were investigated. The subjects were members of 1st, 2nd and 3rd position holders respectively. Marten’s sports competitive anxiety test (SCAT) for adults will administered to the subjects selected or the study. T test will applied to find out intra group differences. ANOVA will worked out 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.

Purpose of the study conducted by Sandhu et al. (1986) will to adapt the competitive anxiety level scale for female basketball players. 32 female basketball players were taken as subjects from the basketball teams of colleges officiated to Punjab University. The data were statistically analyzed by using the statistical operation including co-efficient or correlation to determine the validity. Factor analysis will also used for the adaptation of test. The result of the study revealed that the test is valid and can be used on female basketball players at college level in Indian conditions.