CHAPTER - II

REVIEW OF

RELATED LITERATURE
CHAPTER - II

REVIEW OF RELATED LITERATURE

A review of research reports on the relationship of Self concept, State competition anxiety, Sports aggression and Eysenck's personality traits that the research scholar could gather from the library of School of Physical Education, DAVV, Indore, LNUPE, Gwalior and internet have been discussed in this chapter.

Chaudhary\(^1\) conducted a study of Psychological Profiles of Indian Judokas as a Function of Age and Weight Categories. The study was conducted on selected Psychological variables on 160 male Indian National Judokas [80 Juniors (above 14 and - 18 years) and 80 seniors (18 and upto 25 years)] 10 from each weight category with the purpose to characterize elite Indian Judokas by their selected Psychological responses to standard human performance measures and to compare them in different weight categories and age group. The variables selected for the study were incentive motivation (IM) [Excellence (EX) - Power (Pa), Sensation (Se.), Independence (Ind.), Success (Su.), Aggression (Agg.), Affiliation (aff.)], Achievement Motivation (AM), State Anxiety (SA), Trait Anxiety (TA), Sports Competition Anxiety (SCA.).

---

Analysis of Variance and T-Test was used to find out the significant difference in the mean score. On the basis of the results, the following conclusions were drawn: in Psychological variables of seniors, no significant difference was found among all weight categories in relation to Ex., PO., Se, Ind., Su., Agg., Aff., AM., SA., TA. and SCA. In psychological variables of juniors, no significant difference was found among all weight categories in relation to Ex., PO., Se., Ind., Su., Agg., Aff., AM., SA., TA. and SCA. In Psychological variables significant difference was found between juniors and seniors in relation to SA. In psychological variables no significant difference was found between juniors and seniors in relation to Ex., PO., Se, Ind., Su., Agg., Aff., AM., SA., TA. and SCA. In Incentive Motivation (IM.) all the subjects were average and above average in both the groups i.e. juniors and seniors in AM. All the subjects are of moderate level of sports AM. In both the groups i.e. juniors and seniors. All the Judo players i.e. juniors and seniors have high level of SA. All the Judo players i.e. juniors and seniors have high level of TA. In SCA, all the Judo players i.e. Juniors and Seniors were found quiet relaxed at the time of competition.

Mason\(^2\) administered "How I see myself scale" and Causley physical fitness test on white American Indian and black university women, results indicated that all groups were more alike on feelings about themselves than they were more different, all had positive

---

feelings about themselves and were above average on physical fitness but physical fitness variables were not related to self concept.

Kaul³ conducted an investigation into the motivational profiles of high and low achievers of individual and team games. Three dimensions of human motivations viz. Body-Centred, Ego-Centred and Beyond-Ego motivational orientations were the subject of investigation in the present study. The Athletic Motivation Profile (Kabul, 2001) was used for assessing individual difference in the relative predominance of these three motivational orientations among Indian athletes. Ninety three athletes belonging to various individual and team games participated in the study. Mean comparisons across groups of high and low achievers of individual and team games indicated that the high achievers of individual games scored significantly higher on Ego-Centered motivations as compared to the high achievers of team games. The high achievers of team games as compared to the high achievers of individual games scored significantly higher on the Beyond-Ego motivational orientation. The low achievers of individual games were found to be higher on Body-Centered motivations as compared to the low achievers of team games.

Jacobs⁴ conducted an experimental study for investigating the self-concept, body image and movement concept of college females

using actuality questionnaires, anthropometric measurements and three questions starts assessing self body and movement concept and coopers 12 minutes field test, he concluded that no significant relationship existed between the self awareness valuables and cardio-respiratory fitness test results.

Clayton⁵ found several low but significant correlations between attitudes towards physical actuality and some of the personality factors, and significant correlations between scores of the personality factors and three of self concept variables.

Whitting and Stennbridge⁶ divided non swimmers into two categories. Analysis of the scores on Maudsley personality inventories given to university male non swimmers indicated that students in category I had a lower extroversion mean than those in category 2, but results were only significant at the 10 percent level.

Sperling⁷ reported that personality differences on a group basis exist among participants in various sports. He found no significant differences between varsity and retained groups. However there was reliable difference in personality pattern of the varsity and internal groups as distinguished from those of non-athletic groups.

---

Walker\textsuperscript{8} conducted a study on aggression in sports. A study of fouling in University Basketball. The purpose of the study was to determine differences in the occurrence of aggression actions (fouls) under several conditions evident in Basketball context. The intent was to examine the possibility to predicting aggressive actions through out the game. Official's plays by play score sheet and official National Collegiate Athletic Association Box score sheets were used to gather the data. The findings of these investigations indicate the fouling is predictable when the range of scoring increases and during the first and last five minutes of the 2\textsuperscript{nd} half. The implications with the findings are the following:

A) The frustration of the game situation causes aggression behavior.

B) No cathartic is apparent as a result of displaying aggressive actions.

C) Several factors contribute to the occurrence of fouling behavior in Basketball game including accidents, intentional fouls, and coach request fouls and over aggressions by players.

Mc Guire et al\textsuperscript{9} conducted a study on aggression as a potential mediator of the Home Advantage in Professional Ice Hockey. Based on the subject-defined delineation between aggression and non-


aggressive Ice Hockey penalties established by Midmeyer and Birch
13 measures were used on data collected from the official game
report and penalty records of the National Hockey League for the
1987-1988 sessions. Both macroanalytic and micro-analytic research
strategies and analysis were employed initial analyses revealed that
home teams won 58.3% of the decided games.

Further analyses showed a significant interaction between
game location and performance. Home team incurred more aggression
penalties in game they won whereas visiting teams incurred more
aggressive penalties in game they lost.

Burton10 studies the relationship between state and trait
anxiety two motivational dispositions and skill attainment in beginning
bowling and beginning revelry. Subjects were 212 college women.
Results showed a relationship between trait anxiety and the level of
state anxiety experienced in the tow motivational dispositions. There
was a significant negative relationship between both state and trait
anxiety and the level of skill attained in beginning revelry.

Ahmed11 examined the relationship between the state anxiety
of male and female scholastic athletic team members and their
athletic team's psycho-social environment. 441 male and female
athletic team members were selected from Eugene-Spring Field,
Oregon, area high school. A packet containing directions, personal

10 Carter Elsie Burton, "State and Trait Anxiety, Achievement Motivation and Skill
11 All Khaireldin Ewees Ahmed," The Relationship between Athletic Team Psycho-
social Environment and State Anxiety." (Dissertation Abstracts International,
data form requesting age, sex, and sports, the team atmosphere scale and the State Anxiety Scale was given to each subject.

The results indicated that six of the TAS subclass correlated significantly with state anxiety. The other five subclasses correlated negatively with more state anxiety. Males and females did not significantly differ in their mean TAS scores or state anxiety.

Smith\textsuperscript{12} studied the effect of anxiety on shooting proficiency of members of the 1977-78 south Dakota State University Women's Basketball team (N=12). The subjects were measured on State Anxiety (SAI); Sport competition Anxiety test (SCAT); Pre-game HR; game filed goal percentage; game free throw percentage. Subjects in Group 1 consisted of players who attempt over 122 field goals during the season which group II attempted 95 field goal or less. Results of ANOVA indicated significant (P.05) deference between groups on season field goals percentage and SAI. Subsequent data analysis throughout this study incorporated only the values from group 1. A significant 'r' was found between scores on the SAI and SCAT. Significant (P.05) multiple regression equations to estimate field goal shooting proficiency from selected measured of anxiety produced multipler's ranging from .47 to .66 and accounted for between 22 and 44 percent of the variance in performance of multiple regression equation for predicting free throw success was not significant (P.05).

\textsuperscript{12} Betty K. Smith, "The Effect of Anxiety on Shooting Proficiency Among College Women Basketball Players", (Completed Research in Health, Physical Education and Recreation 22, 1980). P.133.
Booth\textsuperscript{13} used MMPI and to compare the personality rating of the freshmen and varsity athletic who participated in only team, individual or team and individual sports. He concluded that no significant differences were found between the means of the scores in any of the MMPI variables among those who participated in individual sport.

Eysencks et. al.\textsuperscript{14} has stated that much neglected area of study in sports psychology concerns the comparison of successful with less successful sportsmen. In comparing an elite sports group with the general population, it is usually implied that the differences obtained are characteristics of success. But a necessary contest would be to have a third group consisting of sportsmen who are not outstanding. Only if differences are apparent between this group and the elite group we can conclude that personality is associated with success at sport, rather than simply with participating in sports.

Hovey\textsuperscript{15} tried to find out the relationship between anxiety and competition in men’s intercollegiate volleyball. He tested 12 members of a men’s volleyball inter-collegiate team, where all subjects completed the sports competition anxiety test. During a team meeting and state anxiety inventory three times, Once 2 min. before a practice session, once 5 min. before a practice session regular season

\textsuperscript{13} Jr. E.G. Booth and Jr. O.E. Booth, “Personality Traits of Athletes as Measured by Minnesota Multiphase Personality University”, \textit{(Research Quarterly 29, May 1958)}. P. 127.

\textsuperscript{14} Eysenck, H.J. Nias, D.K.B. and Cox D.N., “Sport and Personality, Advances in Behavior Research and Therapy”, \textit{(An International Review Journal, 1982)}. P. 4

\textsuperscript{15} Kim Hovey, “The Relationship Between Anxiety and Competition in Men’s Intercollegiate Volleyball”, \textit{(Completed Research in Health, Physical Education and Recreation 21, 1980)}. P.144.
match and once 5 min. before a tournament match. It was predict state anxiety the three competitive situations of practice, regular season game and tournament game to not produce different state anxiety and the three competitive situations; a positive relationship exist between trait anxiety and tournament state anxiety.

Hanton, Sheldon, Cropley, Brendan, Neil, Richard, Mellalieu, Stephen D, Miles, and Andrew\(^\text{16}\) conducted study on Experience in sport and its relationship with competitive anxiety. The purpose of this study was to investigate the influence of experience upon the interpretation of anxiety-related symptoms in elite performers. Initially, a preliminary inductive generalization (Patton, 2002), consisting of a focus group interview (n = 3) and individual interviews (n = 6), was conducted in order to explore the conceptual understanding of experience. Data was then inductively analyzed to generate information to guide the examination of the experience-anxiety relationship. For the main study, based on key themes identified in the inductive generalization, individual elite athletes (n = 6) were then interviewed to investigate how specific critical incidents influenced their interpretation of anxiety-related symptoms. Deductive analysis highlighted differences between the effects of positive and negative incidents on subsequent appraisals of cognitive and somatic symptoms associated with anxiety. Reflective practice was also identified as being important in generating

knowledge concerning the interpretation and control of anxiety-related symptoms.

Visek, Amanda J, Watson, Jack C, Hurst, Jennifer R, Maxwell, Jonathan P, Harris, and Brandonn S. conducted study on Athletic identity and Aggressiveness: a cross-cultural analysis of the athletic identity maintenance model. Research independently examining athletic identity and sport aggression is quite extensive; however, the relationship between these variables has yet to be explored. Findings from both the identity literature and the sport fandom literature regarding team identification and aggressive fan behavior provides a foundation on which to hypothesize about the potential role athletic identity may have in the expression of athlete aggression (i.e., Athletic Identity Maintenance Model). Therefore, the purpose of the study was to examine the relationships among athletic identity, anger, and aggressiveness in competitive athletes and to assess cross-cultural differences. Male athletes (N = 569) participating in contact and collision sports in the United States (n = 362) and Hong Kong (n = 207) completed measures of athletic identity, anger, and aggressiveness. Results indicated positive relationships among athletic identity, anger, and aggressiveness with differences in those variables found with respect to sport type and culture. Group

comparisons yielded significant differences between lowly and highly identified athletes in both anger and aggressiveness.

Chris Gee, and Phillip Sullivan\textsuperscript{18} studied on a considerable amount of research has been conducted on the use of aggressive behavior in hockey; however, such studies have often been compromised by their choices in methodology (Kicker, Tenenbaum & Mattson, 2000). The purpose of the current investigation was to test the utility of a videotaped observation (VO) approach on the study of aggressive behavior, and to compare the results with previous findings. Subjects were male varsity hockey ($n = 79$) players competing at a neutral location where two video cameras had been placed to record the action. The competitive tapes were coded by two independent observers using a validated operational list, with a high inter-rater reliability ($> 90\%$). The VO design accounted for significantly more aggressive infractions [$x^2 (1, N = 74) = 28.60$, $p < .001$]; thus, highlighting its ability to overcome previous limitations. Furthermore, this more inclusive sample of behaviors provided substantially different results when tested according to the score differential, period, player position, and team status (i.e., winning, losing, tied). These discrepancies are explained according to the methodological differences. Finally, limitations of the VO design are discussed and its future value to the study of aggressive behavior in sport is highlighted.

Arne Nieuwenhuys, J. Rob Pijpers, Raoul R. D. Oudejans, and Frank C. Bakker\textsuperscript{19} studied on the title "The Influence of Anxiety on Visual Attention in Climbing". The objective of the current study was to investigate anxiety-induced changes in movement and gaze behavior in novices on a climbing wall. Identical traverses were situated at high and low levels on a climbing wall to manipulate anxiety. In line with earlier studies, climbing times and movement times increased under anxiety. These changes were accompanied by similar changes in total and average fixation duration and the number of fixations, which were primarily aimed at the holds used for climbing. In combination with these findings, a decrease in search rate provided evidence for a decrease in processing efficiency as anxiety increased.

Julien P. Chanal, Herbert W. Marsh, Philippe Sarrazin, and Julien E. Bois\textsuperscript{20} conducted study on the title Big-Fish-Little-Pond Effects on Gymnastics Self-Concept: Social Comparison Processes in a Physical Setting. In sport/exercise contexts, individuals use the performances of others to evaluate their own competence. In big-fish-little-pond effect (BFLPE) in educational settings, academic self-concept is positively predicted by one's academic achievement but negatively predicted by the average achievement of others in one's


school or class. Participation in programs for academically gifted students leads to lower self-concept. In apparently the first test of the BFLPE in the physical domain, multilevel models of responses by 405 participants in 20 gymnastics classes supported these predictions. Gymnastics self-concept was positively predicted by individual gymnastics skills, but negatively predicted by class-average gymnastics skills. The size of this negative BFLPE grew larger during the 10-week training program (as participants had more exposure to the relative performances of others in their class), but did not vary as a function of gender, age, or initial gymnastics skills.

Herbert W. Marsh, and Clark Perry\textsuperscript{21} conducted study on Elite athlete self-concepts, which contributed to championship performances in two international swimming championships beyond that which could be explained by previous personal best (PPB) performances for 257 of the world's top swimmers from 30 countries. Responses to the Elite Swimmer Self-Description Questionnaire (ESSDQ) completed at the start of each championship (prior to competition) were psychometrically strong and resulted in a well-defined factor structure. Whereas championship performance was highly related to PPB performance ($r = .90$), structural equation models demonstrated that elite athlete self-concept also contributed significantly to the prediction of subsequent championship performance, explaining approximately 10% of the residual variance.

after controlling for PPB. For swimmers who competed in two events, results based on the first event were replicated in the second. The results have important theoretical, substantive, and practical implications for mentors and educators.

Siva Sankar Reddy Mudimela\textsuperscript{22}, an attempt has been made to study the impact of the level of participation on psychological factors such as aggression, anxiety, achievement motivation and performance. Six hundred and twenty five soccer players representing three different levels that is, inter-university, inter-district, inter-collegiate, constituted the sample of the study. Sport Competition Anxiety Test of Marten (1977), Aggression of Smith (1973), Sports Achievement Motivation of M.L. Kamlesh (1983) were administered to assess anxiety, aggression and achievement motivation respectively. The performance of soccer players was assessed by using rating scale for the evaluation of playing ability by experts for soccer players (Pown Radha 1996). One way analysis of variance and stepwise multiple regression analysis were employed to analyze the data. Significant differences were found among three levels of participation with regard to aggression, achievement motivation and performance only. Aggression and achievement motivation contributed significantly to performance whereas anxiety is found to have negative impact on the performance.

\textsuperscript{22} Siva Sankar Reddy Mudimela, "Impact of level of participation on Aggression, Anxiety, Achievement Motivation and Performance among Soccer players." (British Journal of Sport and Exercise Medicine, Vol. 44, Sept. 2010). P. i61
D.K. Dureha, Moradhvaj Singh, Santosh Yaduvanshi, Pooja Mishra\textsuperscript{23} Conducted study to compare the status of national and international hockey players on the selected psychological variables. Sixty male hockey players of India divided into two groups, national (n=30) and international (n=30). The age range of the subjects was 17-25 years. The collection of data was based on four test-batteries i.e., Alberta Incentive Motivation Inventory, the Sports Achievement Motivation test, State and trait Anxiety Inventory and Sports Competition Anxiety Test. As shown by the results of the study there were insignificant difference was found in the incentive motivation, achievement motivation, state anxiety and trait anxiety between national and international hockey players and significant difference was found in sports competition anxiety. In order to test ‘t’ test was used at 0.05 level of significance. The hypothesis that international and national players would not differ accepted in achievement motivation and rejected in the case of achievement motivation, state, trait and sports competition anxiety.

Harmeet Singh Bawa\textsuperscript{24} conducted study on the title "Personality Hardiness, Burnout and Sport Competition Anxiety among athletics and Wrestling Coaches." He suggested that the coaching is a challenging profession that requires the coaches to reconcile the


\textsuperscript{24} Harmeet Singh Bawa. "Personality Hardiness, Burnout and Sport Competition Anxiety among athletics and Wrestling Coaches." (British Journal of Sport and Exercise Medicine, Vol. 44 Sept. 2010). P. i57-i58
often contrary goals of developing winning athletic program and providing positive personal and academic experiences for their athletes. In at least all the games and sports, about 50% is the role of a coach to prepare a team/athlete to give high performance in national and international competitions. The pressure to win, coming up to the expectation of the people and ever present interpersonal demands can lead to stress and render coaches susceptible to burnout. Persons with hard personality can easily and constructively cope with acute stress and burnout. Personality hardiness of an individual has relationships with his burnout and competitive trait anxiety. The coaches who are higher in personality is defined as multidimensional personality construct comprising three characteristics, control, commitment and challenge. Burnout refers to the loss of enthusiasm, excitement and essence of mission in one's work. It also cause feelings of helplessness, hopelessness, depression, meaninglessness, negative self concept and attitude towards work, life and other peoples. Burnout leads to emotional stress and physiological problems. Burnout is thought to be a consequence of prolonged exposure to stress and perception of an imbalance between situational demands and the resource available to meet these demands. Sport Competition anxiety is another dimension related to sport performance hardness and burnout among athletes and coaches is quite a new topic in research on which researchers have started working in the last two decades. The investigator who has been national level cyclist, swimmer observed and felt lack of motivation, enthusiasm interest and dedication among coaches. The study was
conducted with a purpose to determine the status of Indian athletics and wrestling coaches pertaining to their personality hardness, burnout and sport competition anxiety. The subjects of the present study were 30 athletes and 30 wrestlers. The short version of the hardness scale developed by Kobasa and Middi (1982) was used to assess the hardness of the subjects. The scale contains 36 items in all that assess the attitude of the subject on the three personality dimensions that is, commitment, control and challenge, competitive trait anxiety was measured by administrating Sport Competition Anxiety Test by Rainer Marten (1986). Maslach burnout inventory (Maslach and Jackson 1986) was administered to assess the burnout status of the athletics and wrestling coaches. The inventory assesses the three aspects of burnout syndrome that is, emotional exhaustion, depersonalization and lack of personal accomplishment. Coefficient of correlations were computed among various variables with regard to athletes and wrestlers, mean, SDs, and 't' values were computed in all variables between athletes and wrestlers. Significant correlation between emotional exhaustion and depersonalization, between emotional exhaustion and competitive anxiety, between commitment and control, commitment and challenge, commitment and total scores of hardness, control and total scores of hardness, challenge and total scores of hardness in case of athletic coaches were found to be significantly younger, significantly greater in control disposition of personality hardness and having significantly lesser amount of competition anxiety when compared with the wrestling coaches.
Kim M. Shapcott, Gordon A. Bloom, Todd M. Loughead conducted study on an initial exploration of the factors influencing aggressive and assertive intentions of women ice hockey players and the purpose of the present study was to investigate women ice hockey players' aggressive and/or assertive behavioral intentions and factors that may have influenced these intentions using the Theory of Planned Behavior as a guide. This study used stimulated recall interviews as the main method of data acquisition. A systematic observation analysis was also employed to aid the stimulated recall interviews. Participants were university female ice hockey players. The results revealed several reasons for aggressive and assertive behaviors, including the score, the players' attitude, and the influence of coaches, parents, teammates, and referees. As well, aspects of frustration, retaliation, and intimidation were discussed by the participants. These findings augment the literature on physicality in women's ice hockey and demonstrate the usefulness of the Theory of Planned Behavior for understanding and explaining the factors influencing aggressive and assertive behaviors.

Werner and Gottheil investigated the relationship between personality and athletic ability. It was carried out at an American Military Academy and compared 340 cadets who were athletic participants to 116 who were not athletic participants before entering.


the academy. Time span of the study was from through to graduation four years later, and the 16 PF questionnaire was used to make the comparisons. Significant differences regarding several personality traits emerged. The athletic group described themselves as sociable, dominant, aggressive, enthusiastic, group dependent and conservative. A higher proportion of the athletic participants graduated than non participant. The study did not find significant changes in either of the groups over the four years.

Martinek, Cheffers and Zaichows\textsuperscript{27} studied the effect of organised physical activity on the development of specific motor skill and self-concept. They found that motor development and self concept scores were significantly higher for the group which participated in the physical activity programme than for the control who did not participate. However, as motor skill improved progressively in higher classes, self-concept actually declined in classes third, fourth and fifth, thus indicating non-significant correlation between motor skill and self-concept.

In an experimental study Keffcr\textsuperscript{28} administered Tennessee self-concept scale to measure cardiovascular fitness of adolescent boys, results showed improvement in the self concept and cardiovascular fitness after participation in a running programme. The


high fitness group showed more positive self-concept initially than the low fitness group in a relationship study of physical and psychological attributes.

Bird\textsuperscript{29} conducted a study on certain personality characteristics of college women participating in Basketball and modern dance. California Psychological Inventory was administered to both groups. The basketball group scored significantly higher at the .05 level on the communality scales and the flexibility and femininity scales.

Bhullar\textsuperscript{30} conducted a study on women players of hockey, Handball, Basketball, Cricket and Volleyball using sixteen personality factor inventory selecting ninety players. The objective was to find out the specific personality traits of sports women in each game as distinct from another. Inter group comparison was made by using 't' test. The investigator found that Hockey group was characterised by being emotionally stable, assertive, tough minded, lively and venturesome. The Handball group excelled in outgoing warm hearted, easy going and participating.

In spite of the massive research that is carried on in the field of personality traits and self-concept no one successfully limit himself to a particular game and the personality traits that the particular game warrants. It is true such researches have been

\textsuperscript{29} Bird, Annie Marie, "A comparative study of certain personality characteristics of college women participating in Basketball and modern dance." (Completed Research in Health, Physical Education and Recreation, 9, 1971). P.147-149.

\textsuperscript{30} J. Bhullar, "Personality Characteristics of hockey, handball, Basketball, cricket and Volleyball sports women", (1\textsuperscript{st} International and 6\textsuperscript{th} National Conference of Sports Psychology Abstract, 1991). P.20
carried out generally like personality traits of athletes and non-athletes. However the investigators have made an earnest to limit the area of study to game of cricket.

Williams\textsuperscript{31} and her associates administered the sixteen PF and EPPS to thirty female fencers who participated in the 1968 national championship. Comparisons were made between high and low level achievers and they were found to differ on the measure of dominance. However this group of female athletes was found to differ from national norms on a number of sixteen PF factors and EPPS measures. The female fencers were high in dominant.

Edward\textsuperscript{32} results of his analysis imperically confirmed many of the proposition of the structure of self-concept proposal by Shavelson et.al., self-concept was formal to be both multifaceted and hierarchically ordered, these results were consistent for both males and females, contrary to the hypothesis however, facts of self-concept at various level in the structures were found to be equally stable.

Deepak Mehta\textsuperscript{33} conducted study on Comparison of self-concept, Eysenck's personality traits of North, East, West, South and Central zone Cricket players of National level. Hundred male

\textsuperscript{31} Jean M. Williams et.al, "Personality Traits of Champion Female Fencers", (Research Quarterly, 41:3, Oct. 1970). P.446-453


cricketers of national level, 20 each from different five zones were selected for this study. To find out the significant differences among various groups of cricket in self concept and personality, F-test was employed and level of significance chosen was .05. The results reveals that there was no difference found among the players of different zone in case of Neuroticism and in the dimension of extraversion west and south zone scored very high towards this important trait, which means that the players of these zones were found to be extroverts. The analysis of data also reveals that the players of Central and south zones possess average self-concept while east zone players scored very low, which indicates towards their poor self-concept.

Sameer E. Bhagirathi\textsuperscript{34} conducted study on the analysis of sports competition anxiety between south and west zone inter university girls Basketball players. The study conducted on 60 girls basketball interuniversity players, 30 from south and 30 from west zone, which were selected randomly from different university teams. Anxiety level was contained by administering Sports Competition Anxiety Test questionnaire of Renier Marten, a day before the competition. To compare the SCAT of south and west zone the ‘t’ test was applied and it shows that there was a significant difference found between south and west zone inter university basketball girls players.

\textsuperscript{34} Sameer E. Bhagirathi. "Analysis of Sports Competition Anxiety between South and West zone inter university girls Basketball players". (Research Bi-Annual for Movement, Vol. 23(2), April 2007). P.8
Rajender Singh, Rajesh Kumar, Ashutosh Tiwari\textsuperscript{35} conducted study on the title \textit{A comparative study of Sports competition anxiety on male and female North zone Interversity badminton players}. The sample of the present study comprised of 40 male and female north zone interversity badminton players of India. Keeping in view the purpose of the study they were divided into two equal groups. The result indicated that insignificant difference between male and female north zone interversity in the anxiety level. It is evident that male and female north zone players in anxiety test differed insignificantly, as the obtained t-value of -1.12 is less than the tabulated value $t = 0.05 (38) = 1.684$.

Ravinder Pal Ahlawat\textsuperscript{36} investigated personality traits of Indian cricket players. Subject were selected from 20 university teams, which participated at interversity and state level, 260 male subjects were randomly. Average age of the subjects was 24 years. 16 PF prepared by Raymond B. Cattel was employed to assess the personality traits of Indian Cricketers. To find out the personality traits of the players mean and standard deviation were calculated from sustained scores.

The players were found to be less intelligent, affected by feelings, serious and shrewd respectively: were as with respect to selected factors, players were neither reserved, humble, expedient, 


shy, undisciplined, self conflict, relaxed and non out going, assertive conscientious, venturesome, tender minded, suspicious, imaginative, apprehensive, experimenting, controlled and tense respectively.

Sameer E. Bhagirathi\textsuperscript{37} conducted study with the aim to find out the relationship of anxiety and achievement motivation to goal keeping among Secondary School level girl hockey players. The study conducted on 10 girls hockey goal keepers of Madhya Pradesh. Their age ranged between 14-19 years. The Sports Achievement motivation test standardized by M L Kamlesh and the state and trait anxiety inventory of Speilberger was selected for this study. To determine the relationship Product moment method of correlation was used. The level of significance set at 0.05. On the basis of findings of the study, significant relationship of state anxiety and trait anxiety to goalkeeping performance was observed for state (0.904) and trait anxiety (0.844) while no significant association with achievement motivation was found.

Kapil Dave and Deepak Mehta\textsuperscript{38} investigated the effect of six weeks Meditation on self-concept of Sportsman Participating in combative sports. For the purpose of the study 50 male players of various combative games from different universities were selected randomly. The games delimited for the study was kabaddi, kho-Kho, Judo, Wrestling. The criterion measures for the study were the


scores obtained from the questionnaire of self-concept standardized by Sherry, Verma & Goswami in the test of self-concept.

Thirty minutes meditation programme was imparted on experimental group by the research scholar in this programme all the eight dimension of Swatva Bodh praikshan of self-concept was included. The data was analyses by 't' test, and findings reveals that the obtained 't' value is 3.39 which indicated significant difference between the pre and post test of the experimental group on self concept who have undergone six weeks of meditation programme. The 't' value required to be significant for 48 degree of freedom was 2.01 at 0.05 level of confidence. Result of present study clearly recommended that meditation training is effective in changing self concept of players of combative types of sports.

Vikram Singh and Dinesh P. Sharma\(^\text{39}\), conducted study to assess the personality traits of the Inter University level of Volleyball Players. For the purpose of the study the male athletes participated in north zone inter University Volleyball championship has been selected. The questionnaire of the selected two variables i.e. neuroticism and extraversion has been taken from Maudsley personality Inventory. The study is mainly based upon primary data collected from randomly selected volleyball players. All the two selected personality traits have respective same questionnaire, which

\(^{39}\) Vikram Singh and Dinesh P. Sharma, "To assess the personality traits of the Inter University level of Volleyball Players". \textit{(Scientific Journal in Sport and Exercise, Vol. 5(2) July-Dec.2009)}. P.11
was filled up by all the subjects and necessary information for the study were collected. The descriptive statistical techniques were computed i.e. mean, standard deviation and co-efficient of variation. The findings of the study have clearly indicated that all the selected population is average as far as neurotic stability trait is concerned. Hence the hypothesis earlier set that the volleyball players would be stable in the neurotic trait is accepted. Findings further reveals that the population selected for the study have shown that all though majority population fall under in average in extraversion whereas the three individuals are consider to be introvert. Hence hypothesis earlier set up that the extroversion would be the trait among the volleyball players is partially rejected. It is concluded that the players those who have secured lower in extraversion and inclined toward introversion need to train and bring into the streamline.