CHAPTER – II

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The researcher made an intensive effort by personally digesting himself many encyclopedias, works of experts in the field and physically imbibing with the conscious-sports-persons who have scaled certain applausible degrees. The datas furnished are cogently related with the study and bears strong and convincing implications. In the context of this study the researcher collected some directly and indirectly related literature which are reviewed hereunder.

Del Rio\(^1\) conducted a study on gender difference between pre-school children on a sample reaction time. The sample for this study consisted of one hundred, four year old boys and girls; fifty subjects in each group. The stimulus was generated by an applelle computer connected to a 12" x 12" colour monitor. The subjects were instructed to a stimulus by pressing a key as soon as a ‘x’ appeared on the screen. Subjects were presented with twelve trials. The design of the study was 2(gender groups)x12

\(^1\) Luis O. Del Rio. "Gender difference between Pre-school Children on a Simple Time" *Journal of sports and Exercise Psychology* 15 (June 1993) 23.
(RT trials) with repeated measures on the last factor. On one way ANOVA was calculated with RT trails as the dependent variable. Results indicated that the boy responded significantly faster than the girls. F(1, 98) = 5, 345, P = 0.229. Boys responded with an average RT of 605.9 m.sec. in contract, girls average RT was 678.7 m.sec.

Haubenstricker and Branta 2 conducted a study on the influence of age, gender and other variables on the motor performance of young children. Longitudinal data were gathered on 64 children (33 boys, 31 girls) ranging in age from 2.5 to 6.0 years. Evaluation of skill patterns were obtained on 10 fundamental motor skills (FMS) and time assessments on three motor tasks. Step wise regression analysis were conducted to determine impact of age, gender, attendance, number of test sessions and selected motor skills on the patterns exhibited on each of the FMS. Gender was related to running, galloping, kicking and punching. Age and gender accounted for less than half of the variability in patterns for all the FMS studied,

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suggesting that the other, perhaps more discrete, factors influence the development of FMS patterns in young children.

Karen, Lanie May ³ conducted on developmental gender role stereotyping for selected sport activities. Subjects (N = 668) were female and male students from gender 3.5.8 and 10 attending local public schools. All subjects completed a questionnaire which displayed pictures of 31 activities. These pictures represented individual and team sports, as well as recreational and leisure activities. Subjects were instructed to designate each of the 31 activities as a "boys activity", a "girls activity" or a "boys and girls activity". The test-retest reliability on this questionnaire was 97. Chi-square analysis of the data revealed age related difference in stereotyping of selected sports activities. With increased age there were more discrepancies between females and males evaluations of activities as gender specific.

Coben 4 carried out a study on gender difference in the relationship between attributions, consequences and depression. The Beck Depression in Ventory, Attributional Style Questionnaire and Attributional Style Questionnaire-Plus were administered to 158 male and 152 female students. The result indicated that attributions and depression were related for both males and females. The consequences of positive events were related to males depression and the attribution regarding the controllability of negative outcomes was associated with females depression.

Cotton 5 investigated gender differences in cognitive abilities and achievement. Students in grade one through twelve were selected from the normative data collected in standardisation of the Woodcock Johnson Revised Tests of cognitive abilities and (WJR-COG) Test of Achievement (WJR-ACH) utilising a stepwise multiple regression approach, this study intended to provide evidence that gender differences with respect

to cognitive abilities based on the Horn-Cattell Model of Intelligence and Achievement are not significant. Small significant differences were found on the Four WJ-R COG cognitive abilities and the WJ - R ACH. Males scored higher on Long term Retrieval and comprehension where as females scored higher on short-term memory and processing speed. On the WJ-R ACH males higher on the comprehension, knowledge cluster and the applied problems achievement test. Females scored higher on broad written language cluster and the test of letter-word identification and humanities.

Jones, Swain and Cale 6 conducted study to examine changes in and antecedents of cognitive anxiety, somatic anxiety and self confidence in a sample of male (N=28) and female (N=28) university athletes. Subjects responded to the Competitive State Anxiety Inventory -2 (CSAI-2) and six antecedent items during the week preceding an important competition. In the case of cognitive increase as the competition neared. Males and females showed the same patterning in somatic anxiety with increases occurring only on the day of competition self

confidence scores revealed a reduction in self-confidence as the
competition neared in both genders, but there was a great
decrease in females than in males.

Samules 7 investigated to determine the extension to which
students' attitude towards school could be explained by the set of
demographic (Gender Cognitive Parent Attitude) variables. A
sample of 313 students in grades 3-8 was drawn from six public
schools. California Achievement Test Scores were obtained from
the school records. Students were administered the School
Sentiment Index (SSI) during the school day. The primary
SSI was used for grade-3 students, the intermediate SSI was
administered to grade 4-6 students and the secondary SSI, was
given to students in grade 7 - 6.

Data were analysed using stepwise and forced entry,
hierarchical multiple regressions at each level of the school
sentiment index. The investigation did not support the majority of
studies which found significant gender differences with respect to
students' attitude.

7 Susankaufman Samuels, "The Relationship of Gender, achievement
and Parent Attitude to Students School", Dissertation Abstracts International
51 (May 1991):3679
Margolis conducted study on psychology of gender and academic discourse. A comparison between female and male students experiences talking in the college classroom. The data for this study were collected through twenty-four open ended interviews with juniors in the Hardward Government Department. The inter-section of gender and language is the focus of this study. The findings reveals that Women's sense of Self-in-relation to other conflicts with distances and detached terms of academic discourse. Traditional academic discourse devalues women's social reality Statistically significant differences were found: male students concerns were individually oriented, centering on projecting an image of confidence, while female students concerns were relational, oriented towards inter-connection with others, female students often saw themselves as having to monitor their preferred way of speaking in order to succeed in the academic discipline, while male students did not describe a gulf between their sense of self and who they must become to participate in classroom.

Lewellyn 9 investigated gender and grade differences in the area of mathematics achievement, self-efficacy, mathematic anxiety and attributions. Two hundred forty one adolescents in grades seven, eight and nine in a Junior High School were involved in the study. The adolescent were compared using the Mathematics. Anxiety Rating scale for adolescents (MARS-A) self efficacy questionnaire. Arithmetic sub-test of the wide range achievement test- Revised (WRAT-R) and an attribution questionnaire. This exploratory research proposed five major questions related to mathematics anxiety, self-efficacy mathematics achievement and attributions. Females out performed males on the dimensions of mathematics achievement. No gender differences were found for mathematics anxiety, self-efficacy or attributions.

McIntyre 10 examined the sex differences in the dimensions of self-esteem and body esteem and the relationship of these differences to the cultural standards of body shape for college

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age men and women. Male (N=121) and female (N=109) students from the two University Completed Survey’s in summer school classes. Male students reported slightly higher overall self-esteem and higher body-esteem. Female students perceived their figures to be heavier than the ideal figure, while male students perceived their bodies to be less muscular than the male physique. Sex differences also appeared in exercise and dieting behaviours.

Deppe 11 investigated the relationship between gender and academic achieve- ment levels and the variables of loneliness and self esteem in college students. The sample consisted of 252 college students in a large South Western University. Subjects were administered the revised UCLA Loneliness Scale, the Index of Self-esteem and a demographic information sheet. A two by three multivariate analysis of variance was used to analyse the data. The data indicated that gender and academic achievement level had a significant relationship to self-esteem while singularly, loneliness was not affected by gender and academic achievement level. Conclusion of the study were that

males were expected by society in general to achieve at a higher than females and that loneliness has no boundaries of generation, race, culture or gender.

Doyle 12 carried out a study on gender differences in humour performance were explored in relation to sex role, aggression and socio-economic status. An equal number (75 each of male and female students in an introductory psychology course were given a newly constructed cartoon test. Self reported aggression did not differentially affected humour performance. Both high and low socio-economic status women significantly preferred female disparaging humour to male disparaging humor. The combination of socio-economic status, aggression and sex role attitudes in relation to human performance was explored indicating a significant (P<.05 preference for male disparaging humour by lower socio-economic status of men and women.

Maxon conducted a study to find relation between achievement motivation and performance\textsuperscript{13} in competitive swimming. The tendency and a thorough survey of swimming achievement designed by investigator were given to 44 college swimmers (29 males and 15 females) from four universities. The results obtained were as follows:

1) There were significant positive motivation questionnaire and the swimming success survey
2) College swimmers achieved significantly by scores on Meharabeian measurement of achievement tendency than the norms for the college students in general
2) Female swimmers obtained significantly higher level of achievement tendencies than the level of male swimmers.

Nesvig \textsuperscript{14} conducted a study to determine whether a relationship existed between an athletic level of achievement and

\textsuperscript{13} Maxon William N. "Achievement Motivation competitive swimming." Completed Research in Health, physical Education and recreation, 24:65 (1982)
gymnastic meet performance secondary purpose was to
determine the level of achievement differed MC Cell and
thematic appreciation test (MTAT) was administered to measure
the level of achievement motivation among male and female
members of the SDSU inter-collegiate gymnastic team. Subjects
found that no significant relationship existed.

Relationship existed between achievement motivation and
gymnastic meet performance among men and women (P.05).
Through the scores of t-test it was found that significant
difference existed between scores attained by men and women
on the MTAT (P.05) ANOVA demonstration significant different in
MTAT scores among the men but not among women.

Brown\textsuperscript{15} conducted a study of the inter relationship of
androgymy self esteem and achievement motivation of female
athletes. Subjects were 75 female athletes from versity team at
LSU and 75 non-athletes selected from English classes on the
basis of scores on two personality inventories the meharaban test
for achieving tendency for females and the short form of the PRE

\textsuperscript{15} Berberly S. Brown. "The Inter-relationship of Androgomy, Self esteem
and achievement motivation of female athletes" Completed Research in
ANDRO scale the IDI were categorised into 4 sex role and achievement groups. The self esteem scores was also recorded for each subject. Regression ANOVA and Chi square were used in the analysis of data. Female athletes were more androgynous than non-athletes. The non-athletes consisted largely of feminine sex typed individuals. Subjects scored significantly lower on self-esteem. There were no significant co-
relationship between self-esteem and achievement motivation.

Gupta¹⁶ selected 36 Hockey players i.e. champion from all over India and 36 men athletes from the State Colleges of Education, Patiala (Punjab). The result of investigation indicate that Hockey Champions were highest on Ma scale while lowest on Pt. scale and low on all scale of inventory as compared with the non-athletes group. It indicate that the playing Hockey might be one of the causes of those differences and the individuals who posses those personality traits might become Hockey Champions. The Hockey Champions according to him had greater ability to concentrate self confident, extraversion and

interest was psychological in nature, tendency to worryless and intelligent as compared with group of non-athletes.

Martinek, Cheffers and Zaichkowsky\textsuperscript{17} studies the effect of organised physical activity on the development of specific motor skill and self-concept were significantly higher for the group which participated in the physical activity programme then for those who did not participate. However, as motor skill unpround progressively in higher classes, self concept actually declined in classes third, fourth and fifth, thus indicating non-significant co-relation between motor skill and self-concept.

To investigate relationship between motor performance in selected motor task and self-concept Sorenson\textsuperscript{18} used Martinek Zaichkousky self concept scale and the jump and reach test, the wall pass test and Zig-Zag run test for motor performance and found significant co-relation between self-concept and performance on all three motors task for the sixth grade girls


(P.05) but absence of significant relationship between self-concept and motor performance in first grade children and sixth grade boys.

Young ¹⁹ administered the AAHPER Youth fitness test, Tennessee self-concept scale and questionnaire concerning academic achievement, estimation and perception to grade seventh and ninth boys and girls in his study on relationship amongst achievement, physical fitness and self-concept. Significant co-relation were reported between various subscale scores of Tennessee self-concept scale and dependent variables. A significant (P.05) relationship between self-concept and physical fitness was indicated for seventh grade boys (r=41) but not for girls or ninth grade boys. Results of the work of Armstrong using Scott Motor Ability Test and Q-sort methods for body image. Suggest that a relationship exists between physical fitness and body image and adolescent girls but not for boys.

Chisholm\footnote{C.H. Chisholm. "Personality Trails of Successful Female Gymnasts in Salmela," Nurturing and Guidance of Gymnastics Talent. (Montreal Sports Psychology) Edition 1986.} investigated difference between successful and less successful gymnast. The study was conducted on 76 female gymnast. The researcher reported that the successful gymnast were significantly higher in drive, consciousness and exhibition when compared to less successful competitors. Less successful gymnasts tested, scored significantly higher in leadership, emotional control and guilt proudness when compared to their counterparts. All of these gymnasts scored high in affiliation, determination consciousness and trust in addition to scoring low in aggression, autonomy and dominance.

Floyd\footnote{Connie Sturkie Floyd. "The relationship between physical performance and self concept" Dissertation Abstracts International 33 (June 1973): 6712.} reported absence of significant (P.05) linear relationship between physical performance and self-concept. The result of this also indicate that there was no significant relationship between physical performance and self description, physical performance and self acceptance, physical performance and ideal concept.
Clayton 22 found secular low but significant co-relations between attitudes towards physical activity and some of the personality tracts and significant co-relation between the personality factors and three of the self-concept variables.

Mason 23 administered the "How I see myself scale and Lindsey physical fitness Test on white Indiana and Black University Women", Results indicated that all groups were more alike on feelings about themselves than they were different. All bad and positive feelings about themselves were about average on physical fitness but physical variables were not related to self-concept.

Clower 24 administered AAHPER Youth Physical Fitness Test Battery, Doulake Q-sort for movement concept and Tennessee self-concept scale on college women to investigate the inter-relationship and the effects of an eight weeks activities.

curriculum on self-concept, movement concept and physical
fitness results indicates that there was moderate positive co-
relation for movement concept, and sell esteem for low fitness
subjects, movement concept related but high fitness exhibited a
correlation only with the physical self item.

Breed ²⁵ have determined predicted performance of women
collegiate gymnasts based on selected personality traits and
professed self-concept using the Jackson’s personality research
form and the Tennessee self-concept scale. Results indicated
significant correlation between gymnastic ability and self-concept
measures of physical self-moral ethical self.

On the basis of performance of three tests, the medicine
ball put, the standing broad jump, Zig-Zag running. Black ²⁶
categorised athlete and non-athlete (Participants) as high and low
in physical skill. He found no significant differences (P.05)
between those of high and low physical skill on physical self-

²⁵ Janet S. Breed have. "Predicting Gymnastic performance Based on
Personality Traits and Professed self-concept for college women". Completed Research in Health, Physical Education and Recreation

²⁶ Deadly H. Black. "The relationship of self concept to physical skill and
Athletic. Participants" Completed Research in Health, Physical Education
and Recreation (1977) : 220.
concept moral ethical self-concept and family, concept. In each of these cases individuals of high physical skill had the higher self-concept as measured by Tennessee self-concept scale.

Adams 27 conducted the study titled "The relationship between children's diabetic control and self-concept internal and external locus of control and trail anxiety". The study investigated the relationship between degree of diabetes management and internal and external locus of control, perceived control, self concept, and anxiety in children. Subjects were 57 children ranging in the age from 6 to 17 years attending a residential summer camp for children with insuline dependent deabete metriens. The subjects completed the Nowick Strickland locus of Control Scales the special berger state, trait anxiety scale and the Adams perceived control scale. The subjects regulation of their diabetic condition was based on the percentage of glycolyted hemoglobin in the blood.

May \textsuperscript{28} conducted a study to find out the effect of an 8 weeks cardiovascular development programme on the self-concept of woman 40-60 years old. For conditioning purposes, the first morning's activity consisted of walking, steps. The second morning's activity consisted of alternating walking steps with jogging steps for a specific number of minutes. Heart rate was used to monitor the exercise intensity.

The control group showed no significant gains in self-concept. The experimental group had highly significant gains in self-concept. The mean heart rate of the experimental group significant decreased, indicating that the programme had a positive cardiovascular effect upon the experimental subjects. The computed paired to score indicated that the experimental group made gains significant greater than the control group. The null hypothesis was rejected and the experimental hypothesis was accepted.

\textsuperscript{28} Barbara E. May. "Effects of Cardiovascular Training on Self-Concept", Completed Research in Health Physical Education and Recreation 21(1979):93
Carol 29 studied on the effect of four teaching techniques in body conditioning to the physical fitness and self-concept of selected college woman twenty-eight students from four university of Utah Exercise for fitness classes were considered for use in this study. Each of the four experimental classes received a different teaching technique in body conditioning as course work. All groups were administered the Tennessee self-concept scale. It was hypothesized that there would be no significant difference among the four experimental group relating to physical fitness and the seven segment of the Tennessee self-concept scale and that the relationship between the total post test scores for all groups in physical fitness and the total post test self concept scores would be low. The results showed that when the selected subjects were taught with a technique of (1) completely structured exercise (Group-A), or with (2) Completely structured exercise divided equally with non-structured exercise (Group-B), or with (3) structured exercise combined with information concerning exercises (Group- Cor with 4) completely non-structured exercise (Group-D) there would be no significant

statistical difference observed among the four groups relating to physical fitness and self-concept.

There were no significant differences between pre-test and post-test scores for each experimental group relating to physical fitness and other related segments of the Tennessee self-concept scale. Therefore, the null hypothesis was accepted. There was no significant positive relationship between the post test scores for all group in physical fitness and the total post test scores of self-concept.

Jette\textsuperscript{30} investigated on the effect of modern dance with musical accompaniment and music with rhythmical activities on body image and self-concept in college women. One hundred eight female volunteers from the university of Minnesota Minneapalis, were randomly divided into classes in one of the three treatment groups. Groups one and four participated in the modern dance with musical accompaniment, group two and five participated in the music with rhythmical activities. Both experimental groups met one hour a day, three days a week, for

seven weeks. Groups three and six were the control. After the treatment period, no significant difference in body image or self-concept was found between classes or groups.

Anderson 31 conducted study to determined whether a combative activity, boxing taught during a required physical education class produced different effects upon the self-concept of college freshmen at the U.S. Military Academy, than did a non-combative activity, gymnastics taught during a required physical education class. 2 random groups, boxing group and gymnastics group (N=150) plus 2 validation group of (N=60) were administered the TSCS before and after experiment treatments consisting of required physical education classes in boxing and gymnastics. Data were analysed using the Hotelling $T^2$ statistical test with the repeated measures design and the step wise multiple discriminant function analysis with the group design. The null hypothesis for pre-tests and post tests were rejected for both experimental groups using the Hotelling $T^2$ statistic of 14 different discriminant function analysis which were computed, the 7

computed using the post test data were significant (PL.05). The 2
discriminant functions which were not significant involved the
gymnastic group. The boxing treatment appeared to produce
positive changes in the self-concepts of the boxing group.
Significant difference from the changes produced within the
gymnastics group by the gymnastics treatment.

Sise 32 found a significant charge in campers self concept at
each of the camps. But no more charge occurred in one camp
then in any other. The discrepancy between self and ideal
narrowed significantly when all the subjects were taken together.

Harshey 33 studies the effects of participation in baseball
programs conducted at deferent levels of competition on the self
of concept of elementary aged males participated in either a
little league program (N = 36) or a REC league baseball
program (N=250 operated concurrently in the same town over a
2 month period. A control group (N=40) who did not participate

32 Betry Sise. "A study of the effect of an Eight-week camping experience
on the Self-concept of girls age 12 to 14 at related private girls camps", 
33 Moon S Chen. "Teh effect of a Medically supervised group Exercise.
Program on the self-concept and life style of Cardiac Patients." Completed 
in either programme was also used. All Ns were administered the Piers Harries self-concepts test. Those in the programs were tested prior to their respective reasons; and immediately following their season's end. The control group was tested before school ended and when school started again, a period spanning the same baseball reason. Results of the application of the Krushal-Wallis ANOVA by ranks and Wilcoxon signed ranks listed indicated that participants in a less structured sports programme do not differ in self concepts in a highly structure sports program have more positive self-concepts than non-participants who are 11 to 12 years old. The self-concept of the older participants in the high competitive program significantly increase after participation.

Chen \textsuperscript{34} conducted the study to find out the effects of a medically supervised group exercise programme on the self-concepts and life style of caries patients. Subjects were 32 male cardiac patients who were treated as Cardiac patients were prescribed but never treated by the Institute exercise. Subjects were compared with respect to scores on the Dallas Cardiac

\textsuperscript{34} Moon S Chen, "Teh effect of a Medically supervised Group Exercise. Program on the self-concept and life style of Cardiac Patients." Completed Research in Health, Physical Education and Recreation 2, (1980): 156.
self-concept scale (8 facts of self concept) and the life style change factors scale (10 lits style factors) Based on ANOVA applied to the 2 administration of the instruments, no significant difference (P>05) between the experimental and control.

Sheehan 35 studied the effect of athletic participation and sex difference on the self-concept of deaf adolescents. The deaf were divided in 4 groups (N=15) female non-athletes, male athletes, and male non-athletes, 30 athletes were randomly selected from, Volleyball, Basket ball, and track and field the Martinelascale -Zaichkowsky self-concept scale for children was chosen because it is a non-Verbal, cultural free test and therefore, would not be based against the deaf population ANOVA revealed into significant difference among the 4 groups. Participation in athletics and sex difference neither enhanced nor diminished the self-concept.

Scubber \(^{36}\) studied a physical training program and self-concept change in alcoholics subject for this study were 28 alcoholics, ages 21 to 57, who had voluntarily entered a 60 days physical training program. 51 subjects were administered the TN self-concept scale and the cotten sub-Max step test before and after engaging in their respective programs. The programs lasted 1 hour, 3 times per week for 8 weeks. ANCOVA showed that the cardiovascular training program had no effect upon total self-concept. Physical fitness level was improved as the result of participation in the program.

Dugan \(^{37}\) studied, the affects of a program of creative dance to a regular program of a adaptive physical education. The subjects were 16 adults participating in the Reverfront, Activity center, an adult day services program for the mentally retarded in Lacrosse.WI. All subjects were tested prior to the beginning of both program and at the end, using selected items from the Peirs Harris Children's self-concept scale. An ANCOVA was used to


\(^{37}\) Mary A. Dugan. 'Effects of a creative approach to dance on the self-concepts of Mentally Retarded Adults, "completed Research in Health Education and Research 19(1978):30L
determine the difference between the mean scores of the groups before and after it was concluded that a program of creative dance as compared to a program of adaptive significant difference in the self-concept of mentally retarded adults in the experimental and control groups. Parker reported that mental ability is not related to self-concept; and self-concept differed significantly only between the low man physical education major group and the physical education major group.

Mc Crory conducted the study to find out the effects of an exercise program on self-concept and physical fitness of Oklahoma State University Commissioned Peace Officers. 24 male campus policemen were pre-tested and post tested on a battery of fitness tests and the Tennessee self-concept scale. After the pre-test subjects were given an individualized exercise prescription based on THR and asked to participate at least 3 times weekly for 16 weeks. If the subject failed to accomplish 2/3

38 Nancy Key Parker. "The Relationship between Notes Ability and self-concept of Women Non Physical Education Major and physical major" completed Research in health, Physical Education & Recreation 4(1962):84

of the duration are intensity of there commended exercise he was classed as a non-participant.

On the post-test there were 11 participants and 13 non-participants. There was a significant decrease in family self-concept of the participants. There were no changes in self-concept in the non-participants. The participants improved significantly in man Vol.2, flexibility body fat, weight residual, MBC, and resting HR. The only significant change in fitness scores among non-participants was a decrease in body fat.

Sheppard \textsuperscript{40} investigated the effects of learning to swim upon the body concept and self-concept of college students who voluntarily enrolled in non-swimmer classes and the relationship of these effects to sex and swimming proficiency. The sample included 50 male and 50 female non-swimmer students at Queens College who wanted to learn to swim. Males (N=25) and females (N=25) participated in swimming classes 3 times/weeks for 12 weeks, Saccard and Jourard’s Body Cathexis Scale. Index

\textsuperscript{40} Samona Sheppard. “Change in Body concept and self-concept among College Students who learn to swim”, Completed Research in Health Education and 15(1973):87.
of adjustment and values, or good's sementic differential technique a dn. the Fox Power test were used Multivariate ANCOVA was performed on pre-test and post test scores.

It was concluded that learning to swim has no effect upon the college student body concept self-acceptance and self-esteem. However, there was evidence that it has a positive effect upon self-description. These effects are unrelated to sex and acquired swimming proficiency.