REVIEW OF RELATED LITERATURE

A summary of the writings of recognized authorities and previous researchers provides evidence that the concerned researcher is familiar with what is already known and what is still unknown and untested. Since effective research is based upon past knowledge, this step helps to eliminate the duplication of what has been done, and provides useful hypotheses and helpful suggestions for significant investigation.

Huff (2000) the differences in the physical fitness levels between home school students and public school students were investigated. The President's Challenge Physical Fitness and Sports test battery was used to measure the physical fitness levels. The statistical analysis indicated that the home school students were significantly more physically fit than the public school students in the areas of upper body strength and endurance, flexibility, and cardiovascular endurance. There was no significant difference in abdominal strength and endurance between home school and public school students. Comparisons made with the state scores revealed that students from South Alabama scored higher than the public school students across the state of Alabama, with the exception of upper body strength and endurance for male students and upper body strength and endurance and cardiovascular endurance for female public school students. When the data from this research were compared to the national norms, 56% of the female home school students, 48% of the male home school students, 39% of the male public school students, and 35% of the female public school students scored above the 50<sup>the</sup> percentiles. Since physical fitness assessment of home school students is a new field of research, there is a paucity of empirical evidence to support or reject these findings.

Nakao and Yano (2006) this study was conducted with the aim of this study was to assess the health impacts of term-limited employment systems that have recently been introduced into Japanese academic institutes. Study design Cross-sectional. Methods A total of 514 male researchers (275 term limited and 239 tenure track) were compared in terms of behavioral, physical and mental status at annual health examinations. At these examinations, working hours and health-related lifestyles were examined using a self-completed questionnaire. Clinical structured interviews of the Diagnostic and Statistical Manual of Mental Disorders, Fourth
Edition (DSM-IV) were used to detect major depression. Results The term-limited researchers tended to work longer hours (P<0.001), drink alcohol more frequently (P<0.001) and eat breakfast less regularly (P<0.05) between the two groups, fatigue was more prevalent (P=0.027) in the term-limited researchers than in the tenure-track researchers, adjusting for the effects of age. Compared with colleagues working in the same laboratories, the term-limited researchers worked longer hours, irrespective of fatigue, whereas only the fatigued tenure-track researchers worked longer hours. In the total sample, the fatigued researchers tended to belong to laboratories where their colleagues, on average, worked longer hours, compared with the non-fatigued researchers. Conclusions of these results imply that the term-limited researchers suffered more from fatigue, due to longer working hours, than their colleagues, and that organized, rather than personal, interventions with respect to the working environment may be effective in reducing overload in such workplaces.

Grievink (2007) the objectives of the firework disaster in Enschede, The Netherlands, on 13 May 2000, a longitudinal health study was carried out. Study questions were: (1) did the health status change over this period; and (2) how is the health status 18 months after the disaster compared with controls? Study design A longitudinal comparative study with two surveys at 3 weeks and 18 months after the disaster. Methods A control group for the affected residents was included in the second survey. Respondents filled in a set of validated questionnaires measuring their physical and mental health problems. Results The prevalence of physical and emotional role limitations, severe sleeping problems, feelings of depression and anxiety, as well as intrusion and avoidance decreased from 3 weeks to 18 months after the disaster for the affected residents. Independent of background characteristics and other life events, residents had 1.5 to three times more health problems than the control group; for example, physical role limitations (odds ratio [OR]=1.5, 95% confidence interval [CI] 1.2–2.0) and anxiety (OR=3.1, 95% CI 2.4–4.2). Conclusions Although health problems decreased compared with 3 weeks after the disaster, 18 months after the disaster, the affected residents had more health problems than the people from the control group.

Nath (2007) the purpose of the study was to compare the selected physiological parameters vital capacity Hemoglobin and exhale capacity between the hostellers and non-hostellers. Total 60 students from the hostellers and non-hostellers (30 from each) the ‘t’ test
was computed to find out the significant difference between the two means it was conducted that there were significant difference in hemoglobin and exhale capacity. So the researcher’s hypothesis was accepted.

Gill (2010) this study was conducted with an attempt to compare physical fitness components namely speed, strength, endurance, agility and flexibility between female students belonging to rural and urban set-ups. The study was carried out on 100 female students, 50 rural and 50 urban of Punjabi University, Patiala. The data was collected by use of measurements of height and weight as well as by application of tests like jumping, stepping, running, flexibility test, etc. The data was analyzed and compared with the help of statistical procedures in which arithmetic mean, standard deviation (S.D.), standard error of mean (SEM), t-test were employed. Rural female students were found to be superior in strength, endurance, speed and agility. Urban female students on the other hand, were found to be heavier and superior in tasks like flexibility.

Rani (2012) the purpose of this study was to compare the health related physical fitness of school girls. For the purpose of the study two types of schools i.e., govt. schools and private schools were selected. Total 100 subjects, (50 from govt. schools and 50 from private schools) were randomly selected. The following health related physical fitness components (endurance, agility, abdominal strength, body composition and flexibility) were selected for this study. Flexibility was measured by sit and reach test, muscular strength was measured by bend knee sit-ups, shoulder muscular strength was measured by flexed arm hang test, agility was measured by shuttle run, cardiovascular endurance was measured by 12 minute run and walk test, and skin fold measurement was taken to measure the body composition. To find out the significant differences between the girls of different schools ’t’ test was calculated at 0.05 level of significance. There was no significant difference found between girls of government school and private school in relation to abdominal strength, agility, endurance, flexibility, upper arm strength and fat percentage.

Malik (2012) the purpose of this study was to find out physical fitness and physiological variables among the Haryana state kho kho and kabaddi female players. Random sample of 240 subjects i.e. (120 kho kho and 120 in kabaddi game) were taken in age 16-20 years for this study. Physical fitness and physiological variables were administered to find out the selected physical
fitness components i.e. speed and strength and physiological variables i.e. systolic and diastolic blood pressure among the different female players. The following techniques such as mean, standard deviation and t-test were used to see the significance of difference between players of kho-kho and kabaddi on various measure as used in the study. It is concluded that kho-kho female players were found significantly better in term of speed component of physical fitness as compared to kabaddi female players. The kabaddi female players were found significantly better in term of strength component of physical fitness as compared to female players. This indicated that there was no significant difference in systolic and diastolic blood pressure of kho-kho and kabaddi female players.

Singh (2012) this study was conducted on physical fitness refers to the organic capacity of the individual to perform the normal task of daily living without undue tiredness or fatigue having reserves of strength and energy available to meet satisfactorily any emergency demands suddenly placed upon him. Fitness is that state which characterizes the degree to which the person is able to function. Fitness is an individual matter. It emplotes the ability of each person to live most effectively with his potential. Ability to function depends upon physical, mental, emotional, social components of fitness all of which are related to each other and mutually interdependent. Physical fitness involves the performance of heart and lungs, and the muscles of the body. The purpose of the study is compare the selected physical fitness components of cricket and athletic inter university players. 20 players from athletic and cricket game each form Lucknow district were selected as subject for this study making total of 40 players. The players those who had represented there university in the inter university tournament during 2009 – 2011 session were selected as subjects and there age ranged from 18-25. The four selected physical fitness test that is forward bending position. (flexibility), 12 minute run/ walk (endurance), shuttle run (agility) and vertical jump(explosive strength) were administered. it is revealed from the data of study that mean value of flexibility of athletic player is better than the cricket players but case of explosive strength cricket player were found better in comparison to athletic players. Similarly in case of agility and endurance it was found the same. Thus the result indicates that athletic players had more flexibility in comparison of cricket players. similarly in case of agility and endurance, the mean value of cricket and athletic players are a mostly same.
Kumar and Xavier (2010) in this study they found that the Kho Kho Players are good because they do good Physical Training compare to Kabbadi Players. The Kho Kho Players are having very good speed, strength and endurance. The aim of this study was to study the difference in Physical Fitness among Kabbadi and Kho Kho Players in Hyderabad. 15 Male Kabbadi Players and 15 Male Kho Kho Players between the age group of 18 Years to 28 Years were taken for the Study. The AAHPER Youth Fitness Test consisting of 6 Items were used for the Study. It was found that Kho Kho Players have good Physical Fitness compare to the Kabbadi.

Gaurav et al. (2010) the aim of this study was to investigate the significant differences of selected physical fitness variables between individual games and team games athletes. A group of 30 sportspersons A (Individual games athletes: N=15) and B (Team games athletes=15) of age group 18-25 years were selected from department of physical education (T), Guru Nanak Dev University, Amritsar, Punjab, India. It was hypothesized that there may be significant differences with regard to selected physical fitness variables among individual and team games athletes. The between-group differences were assessed by using an independent samples t-test. The level of p<0.01 was considered significant. An independent samples t-test revealed that individual games athletes had significantly higher muscular strength, agility, power, speed and cardiovascular endurance (p<0.01) than team games athletes. Further investigations are needed on the above studied variables along with physiological variables to assess relationships among them and with performances in team games and individual games athletes.

Kumar and Singh (2012) the purpose of this study was to compare the physical fitness of Government and Non-Government school boys of Chandigarh. The AAHPER (1976) Youth Physical Fitness Test (Test Item Six : Pull-up, Sit-up, Shuttle Run, Standing Broad Jump, 50 yard Dash and 600 Yard Run/Walk) was conducted on 4000 male students ranging between 13 to 16 years students in different schools from Government (N=2000) and Non-Government (N=2000) area of Chandigarh (UT). To compare the mean differences between the Government and Non-Government school boys’ test was computed with the help of SPSS Software. The level of significance chosen was .05. There were significant differences obtained between government and Non-Government school boys. The finding reveals that Non-Government school boys are superior in their physical fitness than their counterparts.
Ghai and Negi (2007) the primary purpose of the study was to compare the motor development patterns of trained and untrained girls of 10-16 years of age. The results of this investigation indicate that trained girls are superior to untrained girls on selected motor performance at every age level. The present investigation was carried out on 752 trained girls and 957 untrained girls from different games and sports (trained) and from different part of India (untrained) falling in the age range of 10-16 years. Six components, of motor development namely Explosive Leg Strength, Abdominal Strength, Trunk Flexibility, Speed, Agility and Endurance were assessed using standard techniques. The results in general indicate a trend of improvement in all the motor performance components of trained and untrained girls belonging to 10-16 years of age. The trend of improvement is rapid up to 13 or 14 years of age, after that trend seems to be slow or stagnated or deteriorated.

Pathak and Rawat (2010) the purpose of the present study was to compare the selected physical fitness variables of school level football and cricket players. Total sixty four (32 from football and 32 from cricket) male players from Little Flower School, Varanasi, were selected for this study. Their age ranged between 14-18 years. AAHPER youth physical fitness test was utilized to measure selected physical fitness components of players. It was hypothesized that no significant difference would be found in selected physical fitness variables of school level football and cricket players. For analysis mean & SD were calculated and to examine the significance difference between the group mean of different physical fitness variables, ‘t’ test was applied, and level of confidence was or .05 level. Study concluded that significant difference found between the means of selected fitness variables such as speed and agility (shuttle run), explosive strength of legs (SBJ), teed of lower extremities (50 mt. dash) and explosive strength, cardio-vascular endurance (12 min run & walk) and no significant difference found between the means of muscular strength (dynamic) and endurance of arm & shoulders (Pull-ups), muscular strength and endurance of trunk (bent-knee sit ups) of school level football and cricket players.

Agashe and Karkare (2003) this study has been aimed to identify the difference of motor fitness between tribal and non-tribal sports person. 150 tribal boys (Av. age 15.53 yrs) and 150 non-tribal boys (Av. age 15.26yrs), 150 tribal girls (Av. age 15.34 yrs) and 150 non-tribal girls (Av. age 14.02 yrs) are selected as sample. All tribal samples are selected from Krida Parisar of Chhattisgarh state. Modified JCR motor fitness test prepared by Cooper (1965) was administered
to each subject. Results revealed that both tribal boys and girls were having significantly high speed and agility (p<0.01). In vertical jump tribal boys were superior (p<0.01). No difference was found on this dimension in tribal girls and non-tribal girls. Regarding chin-up tribal boys showed significantly more strength compared to non tribal boys (p<0.01), but surprisingly non-tribal girls were superior in chin-up item compared to tribal girls. Results indicated that tribal boys and girls were much more fit than non-tribal boys and girls in motor fitness.

Patel (2011) the purpose of the study was to compare the propulsive task related physical fitness in obese and non obese adolescent girls. To achieve the purpose hundred adolescent girls from classes ninth and tenth were selected as subjects from Kadvibai Virani school Rajkot. The students were divided into 'obese' and 'non obese' group based on their skin fold measurements. Each group consists of so subjects. The ability to propel and lift the body mass is called propulsive task related physical fitness. The selected propulsive task related physical fitness variable were assessed by standing broad jump, sit-ups, 50-yard dash, shuttle run and 600 yards run and walk test. Other subjects had inferior performances on all tests requiring propulsion or lifting of the body mass compared with their non obese counterparts. Results of this study showed the obese subjects had poorer performances on weight-bearing tasks scoring lower scores on all fitness components. To encourage adherence to physical activity in obese youth, it is important that activities are tailored to their capabilities. Results suggested that weight-bearing activities should be limited at the start of fitness program with obese participants and alternative activities that rely more on non weight bearing activities. Such as cycling, swimming or other aquatic activities may be incorporated. It was concluded that the non obese children were better than the obese children in selected propulsive task related physical fitness components.

Rao (2011) the aim of the study was to study the difference in Physical Fitness among Basket Ball and Hand Ball Players in Hyderabad. 20 Hand Ball Players and 20 Basket Ball Players between the age group of 18 Years to 21 Years of Osmania University were taken for the Study. The AAPHER Youth Fitness Test consisting of 6 Items were used for the Study. It was found that Hand Ball Players have good Physical Fitness compare to Basket Ball Players. This study shows that the Hand Ball Players are good because they do good Physical Training compare to Basket Ball Players. The Hand Ball Players are having very good speed and endurance.
Sisodiya and Singh (2010) the purpose of the study was to determine the motor fitness Characteristics among Individual and Team Game Players and also to compare Individual and Team Game Players on selected motor fitness Components. All the motor fitness Characteristics were measured as per AAHPER test directives. The subjects for this study were selected from the Rajasthan who participated in Inter-varsity and nationals tournaments. A total of 50 male, 25 from each category i.e. Individual and Team Games. From the category of Individual Games, five games were selected with five subjects from each i.e. Gymnastic, squash, Badminton, Tennis and Swimming. From the category of Team Games, five games were selected with five subjects from each i.e. Cricket, Football, Basketball, Volleyball and Hockey. To find out the significant difference of selected motor fitness variables between Individual and Team Game Players by 't' test was used and the level of significance was set at 0.05 level. The result of the study pertaining to the male players leg explosive strength, female players hand and abdominal strength did not proved to be significantly related. The insignificant relationship in speed factor in male individual & team sports player.