IMPORTANCE OF SPORTS IN BOOSTING ASSERTIVENESS: A STUDY ON SECONDARY SCHOOLS STUDENTS OF CHANDWAD TEHSIL

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ABSTRACT

Physical education plays important role in school education. Physical and psychological aspects of children are considerable according to their development. In the present study, researcher has tried to examine the effect of physical education on children's mental health, their personality trait like assertiveness etc according to their participation in sport activities and aloof from them with their gender. Various past researches indicates this type of trend, but as a game teacher, researcher, want to confirm these findings, he chose this subject. For this purpose he used 2X2 factorial design. 600 school students are selected randomly from secondary schools of Chandwad Taluka, Nashik district. Results revealed that physical education has impact on mental health and assertiveness of students. As well as it is found that there is a positive relationship between physical education training and mental health and physical education training and assertiveness of the students. Gender difference has been found in mental health but not in assertiveness.

Keywords: Physical and Psychological aspects, Mental Health & Personality Trait.

1. INTRODUCTION

Sport, Games and exercise are useful for our health. Sound mind and sound body is a result of games and playing. In an interdisciplinary science called sport psychology is a combination of kinesiology and psychology. In this science it is studied that how various sport activities are helpful for improve one's performance in various angles. In addition to instruction and training of psychological skills for performance improvement, applied sport psychology may include work with athletes, coaches, and parents regarding injury, rehabilitation, communication, team building, and career transitions. The birth of sports psychology in Europe happened largely in Germany. The first sports psychology laboratory was founded by Dr. Carl Diem in Berlin, in the early 1920s, (Cole, B., 2012). Games like Football, Wrestling and Basketball, Golf are beneficial for children learn to work together and use appropriate social skills. Co-operative hoops are the useful for understand the concept of inclusion and that everyone belongs no matter the situation. Some games like Kabaddi, Kho-Kho are helpful to develop cooperation skills. Well-designed sequences of challenging physical activity can lay important foundations for physical health and well-being. Physical activity also contributes to psycho- social development. Or physical activities can simply be used for fun. The new and recent trend is related to sedentary games. Like VDO games, the concerned about the effects of video games on your health? Or perhaps you're just curious about this stuff or need to research it for a study.

Sport has many aspects. Psychological aspect of the player is very important for good performance and it is a matter of research study. A new branch, Sport psychology is an interdisciplinary science that draws on knowledge from the fields of Kinesiology and psychology. It involves the study of how psychological factors affect performance and how participation in sport and exercise affect psychological and physical factors. In addition to instruction and training of psychological skills for performance improvement, applied sport psychology may include work with athletes, coaches, and parents regarding injury, rehabilitation, communication, team building, and career transitions.

We know that exercise has positive effects on the brain. Researchers at Duke University demonstrated several years ago that exercise has antidepressant properties. Other research has shown that exercise can improve the brain functioning of the elderly and may even protect against dementia.

One theory for some of the benefits of exercise include the fact that exercise triggers the production of endorphins. These natural opiates are chemically similar to morphine. They may be produced as natural pain relievers in response to the shock that the body receives during exercise. However, researchers are beginning to question whether endorphins improve mood. Studies are showing that the body's metabolism of endorphins is complex, and there are likely additional mechanisms involved in the mental health effects of exercise.

Some studies have found that exercise boosts activity in the brain's frontal lobes and the hippocampus. We don't really know how or why this occurs. Animal studies have found that exercise increases levels of serotonin, dopamine and norepinephrine. These neurotransmitters have been associated with elevated mood, and it is thought that antidepressant medications also work by boosting these chemicals.

Exercise has also been found to increase levels of "brain-derived neurotrophic factor" (BDNF). This substance is thought to improve mood, and it may play a role in the beneficial effects of exercise. BDNF's primary role seems to be to help brain cells survive longer, so this may also explain some of the beneficial effects of exercise on dementia.

Applied sport and exercise psychology consists of instructing athletes, coaches, teams, exercisers, parents, fitness professionals, groups, and other performers on the psychological aspects of their sport or activity. The goal of applied practice is to optimize performance and enjoyment through the use of psychological skills.

It is pertinent to mention that the practice of applied sport psychology is not legally restricted to individuals who possess one type of certification or licensure. The subject of "what exactly constitutes applied sport psychology and who can practice it?" has been debated amongst sport psychology professionals, and as of 2011, still lacks formal legal resolution in the United States. For instance, some question the ability of professionals who possess only sport science or kinesiology training to practice "psychology" with clients, while others counter that clinical and counseling psychologists without training in sport science do not have the professional competency to work with athletes. Th bottom line that most of us feel good after exercise. Physical exercise is good for our mental health and for our brains. Someday we will understand it all better - but we can start exercising today.

2. METHODOLOGY

In this chapter, the overall design of the study, the research questions, the population and sample selection of the study, the data collection instruments, the data collection procedure, and the data analysis methods are presented.

Here, researcher mention complete methodology of the research work such as objectives, hypotheses, research design, sample of the study, details about tools and data collection, the scoring and the data analysis. According to the need of present research researcher has implied here survey research technique. Survey research is a new technique for social science research. Survey, as such, is quite an old technique and was largely developed in the eighteenth century. However, in the second part of the nineteenth century a systematic literature was made available by Booth who is regarded as the father of scientific social surveys (Moser & Kalton, 1971). But survey research as a special branch of social science research, is considered as a new technique developed in the twentieth century.

Survey research, mostly used by psychologists, sociologists and anthropologists, should be distinguished from sample survey, which is its close ally. The survey researcher is primarily interested in assessing the characteristics of the whole p0pulation, thus, survey research may be defined as a technique whereby the researcher studies the whole population with respect to certain sociological and psychological variables. For example, if a researcher wants to study how many people of both sexes in India adopt contraceptive devices as a measure of birth control, this will constitute an example of survey research. But a survey researcher rarely takes pains to make an approach to each member of the population or universe probably because it requires a lot of time, money and patience. Thus he takes a convenient random sample, which is considered to be representative of the whole universe a[ld subsequently, an inference regarding the entire population is drawn, When a researcher takes a sample from the population for studying the relative incidence, distribution and relationship of psychological and sociological variables, the survey is termed as a sample survey. Survey research depends upon three important factors:

1. As survey research deals with the characteristics, attitudes and behaviors of individuals or a group of individuals called a sample, direct contact with those persons must be established by the survey researcher.
2. The success of survey research depends upon the willingness and the co- cooperativeness of the sample selected for the study. The people selected for the survey research must be

willing to give the desired information. In case, they are not willing and do not co-operate with the survey researcher, he should drop the plan in favor of some other technique.

3. Survey research requires that the researcher be trained personnel. He must have manipulative skill and research insight. He must possess social intelligence so that he may deal with people effectively and be able to extract the desired information from them.

4. In the present study researcher try to achieve four goals of research in management: Description, prediction, understanding, and creating change. Researcher used survey research method to develop detailed descriptions of behavior, often in natural settings. Survey research method allow researcher to describe people's attitudes and opinions. Researcher will able to make predictions about behavior and mental processes when he or she discover measures and observations of secondary students. Description and prediction are essential to the scientific study of behavior; researcher also seeks for understanding the "why" of behavior. We achieve scientific understanding when we identify the causes of a phenomenon.

2.1 Population

The purpose of this study is to study/examine the difference between player students and non-player students and their psychological and physical health as well as their gender differences and their overall improvements through the games. The population for this study consisted of all the secondary school students from the Chandwad tehsil.

2.2 Objectives

To study the physical education aspect of the secondary school students in relation to.mental health , exercise., and assertiveness variables. It was also hypothesized that students who involved in physical education activities are show better mental health characteristics than those who are not involved in physical activities.

2.3 Hypotheses

It was also hypothesized that boys student of secondary education have better mental health than girl students. Students who involved in physical education activities are more assertive than those who are not involved in physical activities. Boys student of secondary education are more assertive than girl students. There is a positive relationship between physical education and mental health. There is a positive relationship between physical education and assertiveness.

2.4 Sample

This is a survey type research. For the present study it has been decided to choose 300 Boys and 300 Girls from Chandwad taluka. In it, 150 Boys are involved in physical education training which are selected as players and 150 boys are non-players. As well as 150 girls are involved in physical education training and 150 girls are free from physical education training and activities. Maximum care was taken to select appropriate sampling. Total 600 samples selected for the present research. All the secondary students were educated and studying in various schools. The age group of respondents was between 10 to 15years. The sample selection method was used as random sampling technique. The demographical area was limited to Chandwad tehsil. No socio- economic background was considered.

STRUCTURE OF SAMPLE

		Type of student		Total
		Players	Non-players	
Gender	Boys	150	150	300
	Girls	150	150	300
Total		300	300	600

2.5 Research Design

Present study is a type of survey research and based on random sampling. With respect to this research, the researcher will have used suitable methodology and planned an appropriate research design. 2X2 research design was carried out in this study.

TABLE 1
2X2 RESEARCH DESIGN

B	A	
	A1	A2
B1	B1 A1	B1 A2
B2	B2 A1	B2 A2

2.6 Selection od Variables:

2.4.1 Categorical Variables: Players, Non-player boys and girls students

2.4.2 Continuous Variables: Mental Health & Assertiveness.

2.7 Instrumentation

2.7.1 Mental Health Inventory

To assess the level of positive mental health in secondary school student, Mental Health Inventory developed by Jagdish and Srivastava (1998) has been used. In the present inventory there are 56 items including 32 false keyed and 24 true-keyed. The present inventory assesses six dimensions of positive mental health. They are-(a) Positive self evaluation (b) Perception of reality (c) Integration of personality (d)Autonomy (e)Group oriented attitude and (f) Environmental mastery. The Reliability of sub-factors of mental health were .75, .71, .72, .72, and .74 respectively. The reliability of the inventory was determined by split-half method' using odd-even procedure. The table gives the reliability coefficients of different dimensions of mental health and over all. Validity of the inventory: Construct validity of the inventory is determined by finding coefficient of correlation between scores on Mental Health Inventory and General Health Questionnaire by Gold berg (1978). It was found to be .54. Besides, the inventory was validated against _Personal Adjustment Scale' developed by Pestonjee (1973). The two inventory scores yield positive correlation of .57 revealing moderate validity.

2.7.2 Assertiveness inventory:

For assessing assertive behaviour of secondary students, researcher used Tasneem Naqvi's assertiveness inventory. This test has widely used test and it has sound reliability and sound validity. This test has two parts, part one includes 35 statements and part two covers six areas of assertive behaviour.

The reliability of the inventory was calculated by the following methods (N=100): 1. Spearman-Brown Formula (Split-half method). For Part-1=.821 and Part-2=.781. 2. Kuder-Richardson Formula(Rational Equivalence method) For Part-1=..762 and Part-2=.698. Validity: Point bi-serial correlation is the test validation in which the criterion of validity is considered to be internally consistent, an item by item computation of point biserial correlation was calculated by using the formula, suggested by Garrett (1967) which shows the test is valid for the measures of assertive behaviour. The assertive end of the scale is at o to 4. Instruction for part-

1: For No/Never =0, For somewhat=1. For sometimes=2, Usually=3 and for practical always=4. Instruction For part –II: The following questions cover six areas that are often blocks to assertive behavior. There are two questions for each area. The first allows you to assess your attitude and irrational beliefs; the second gives you a chance to examine your behavior.. Scoring- In the part-I of this inventory, the scores 0, 1, 2, 3, 4 have already been given which mean No, Somewhat, Average, Usually and Practically Always. Add the all scores of the subject. For the part-II please note that the following answers on the questionnaire indicate assertive beliefs and behaviors:1. c 2. b 3. d 4. C 5. b 6. c 7.C 8.d 9.d 10.e 11.e 12.b

2.8 Administration of Questionnaires and data collection

The participants were approached in the secondary schools of Chandwad area. They were told that this was a research to find out the effect of physical education on mental health assertiveness. During the meeting the confidentiality was assured that their responses would be used for research purposes only. The Mental Health Inventory and Assertiveness inventory were circulated to them and asked to fill the information regarding their age, gender, class, etc. properly. It took about 45 minutes to complete both the inventories. They were told to ask if they had any doubt regarding the items.

2.9 Analysis of Data

For the present study, there were 600 randomly selected samples used for data collection. 300 players and 300 non-players are considered for test administration. In 300 players, 150 are boys and 150 girls as well as in 300 non- players 150 are boys and 150 are girls. All the students selected from various secondary schools of Chandwad tehsil area. The technique of statistical analysis, analysis of variance (ANOVA) in order to examine the roll of main variables and to study their main as well as interaction effects. Subsequently, another statistical technique termed as the least significant difference (post- hoc) test was apply to find out the significance between two means in specific pairs of sub- groups formed by different levels of mains variables. To check the relation and association between physical education mental health and assertiveness, correlation method was used.

3. RESULTS

This is a survey type research. Hence, researcher has employed and fulfills all the requirements of survey research. By using the 2x2 factorial design was used for analysis of data. ANOVA and LSD statistical techniques were used for data analysis.

TABLE. 2
ASSESSING NORMALITY OF THE VARIABLE MENTAL HEALTH
WITHDESCRIPTIVE STATISTICS.

Variable	Descriptives	Statistic	Std. Error
Mental Health	Mean	183.92	.231
	5% Trimmed Mean	182.95	
	Median	185.00	
	Variance	87.24	
	Std. Deviation	9.01	
	Minimum	154	
	Maximum	271	
	Range	117	
	Skewness	.371	.243
	Kurtosis	.288	.121

TABLE 3
DESCRIPTIVE STATISTICS: DEPENDENT VARIABLE: MENTAL HEALTH

Type of student	Gender	Mean	Std. De vi ation	N
Players	Girls	182.6400	8.59396	150
	Boys	193.0000	4.93039	150
	Total	187.8200	8.70864	300
Non-players	Girls	181.8000	5.01541	150
	Boys	178.2267	9.01017	150
	Total	180.0133	7.49625	300
Total	Girls	182.2200	7.03681	300
	Boys	185.6133	10.35929	300
	Total	183.9167	9.00935	600

The above table provides the mean scores, standard deviations and N for each subgroup of the two independent variables and here mental health is treated as dependent variable. Inspecting the pattern of these values give us an indication of the impact of Independent Variable.

TABLE 4
ANOVA SUMMARY: MENTAL HEALTH

Source	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Type o f Students	9141.607	1	9141.607	178.807	.000	.231
Gender	1727.207	1	1727.207	33.784	.000	.054
Type of students X Gender	7280.167	1	7280.167	142.398	.000	.193
Error	30470.853	596	51.126			
Total	20343824.0	600				
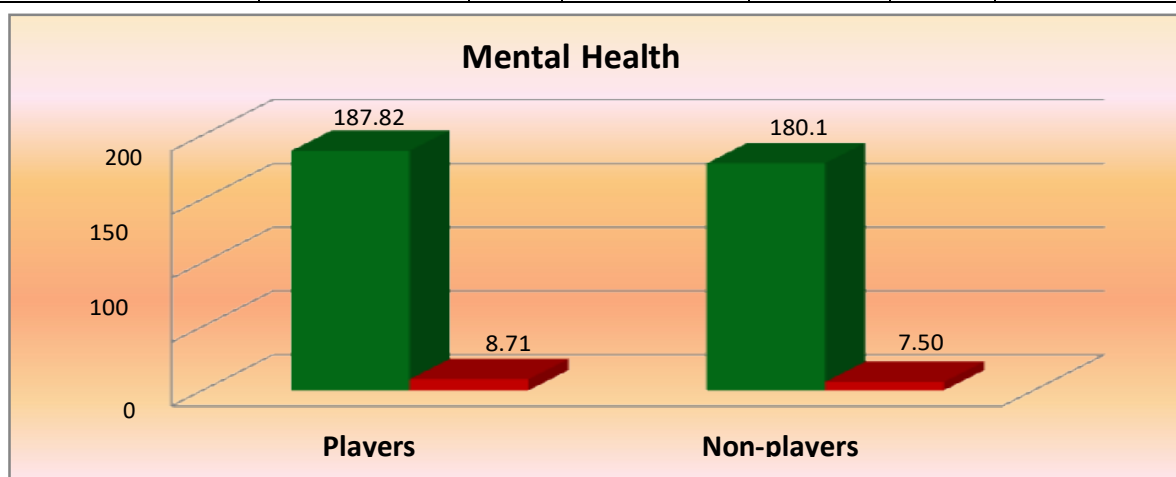
Graph:1- Comparative level of mental health between Players and non- players school students
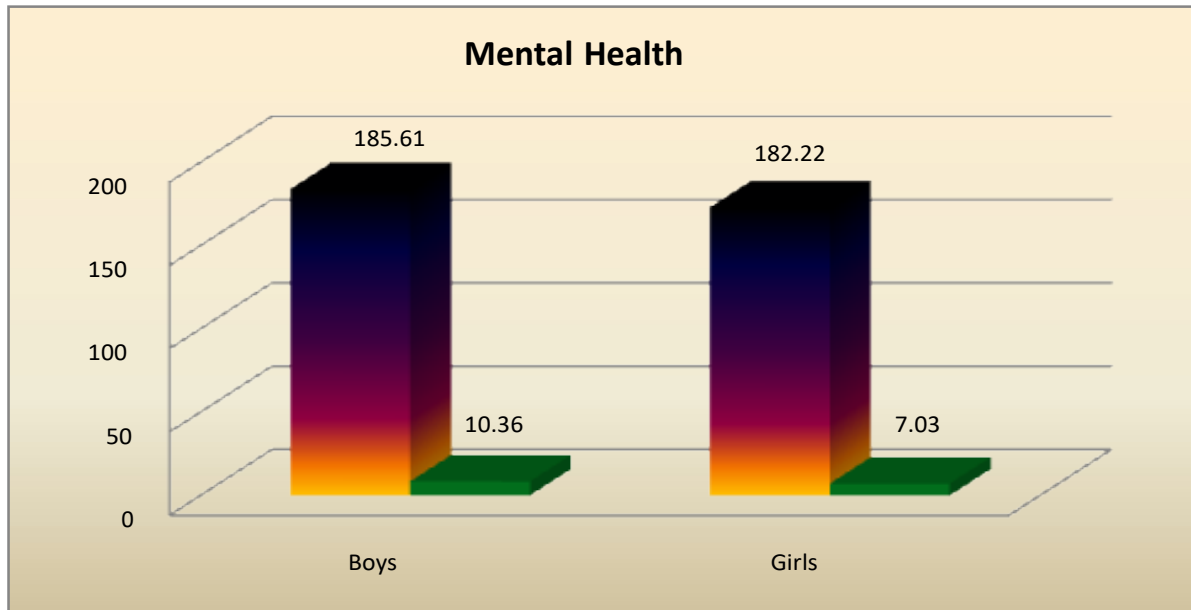
Graph:2-Comparative level of mental health between boys and girlstudents**.**

TABLE 5
ASSESSING NORMALITY OF THE VARIABLE POSITIVE SELF EVALUATION
A COMPONENT OF MENTAL HEALTH WITH DESCRIPTIVE STATISTICS.

Descriptive			Statistic	Std. Error
Positive Self Evaluation	Mean		34.2950	.08382
	95% Confidence Interval for Mean	Lower Bound	34.1304	
		Upper Bound	34.4596	
	5% Trimmed Mean		34.3833	
	Median		35.0000	
	Variance		4.215	
	Std. Deviation		2.05305	
	Minimum		24.00	
	Maximum		39.00	
	Range		15.00	
	Interquartile Range		3.00	
	Skewness		-1.134	.100
	Kurtosis		3.226	.199

TABLE 5.1
ASSESSING NORMALITY OF THE VARIABLE ASSERTIVENESS WITH DESCRIPTIVE STATISTICS.

Variable	Descriptives	Statistic	Std. Error
Assertiveness	Mean	67.56	.699
	5% Trimmed Mean	67.70	
	Median	68.00	
	Variance	195.51	
	Std. Deviation	13.98	
	Minimum	26.00	
	Maximum	105.00	
	Range	79.00	
	Skewness	-.184	.122
	Kurtosis	.274	.243

In the above table showing a descriptive statistics of whole sample (N=600). Mean is 67.56 which is close to the trimmed mean 67.70. Hence, we conclude here that the data is unaffected by extreme values (outliers) (Sheridan, J Coakes, 2006). Median (68.00) is greater than the mean (67.56) and it interprets that the distribution of scores is somewhat negatively skewed. Variance is 195.51, SD is 13.98 and the range between highest and lowest score is 79.00. The value of kurtosis (.274) is greater than 0.263, the distribution is said to be platykurtic; means distribution of scores is somewhat 'flattened'. (Julie Pallant, 2001).

It was noted that the assumption of normality, level of measurement, and random sampling did not pose any problem for the ANOVA. The above analysis indicated that the assumptions underlying ANOVA are met quite satisfactorily in the present analysis, thus justifying the presentation of ANOVA results below.

TABLE 5.2
SHOWING DESCRIPTIVE STATISTICS OF THE VARIABLE ASSERTIVENESS ON THE BASIS OF EACH CELL.

| Type of student	Gender	Mean	Std. Deviation	N
Players	Boys	69.50	12.04	150
	Girls	69.08	11.90	150
	Total	69.29	11.94	300
Non-players	Boys	65.64	15.22	150
	Girls	66.03	16.04	150
	Total	65.84	15.60	300
Total	Boys	67.57	13.83	300
	Girls	67.56	14.17	300
	Total	67.56	13.98	600

The above table provides the mean scores, standard deviations and N for each subgroups of the two independent variables and here assertiveness is treated as dependent variable. Inspecting the pattern of these values give us an indication of the impact of Independent Variable.
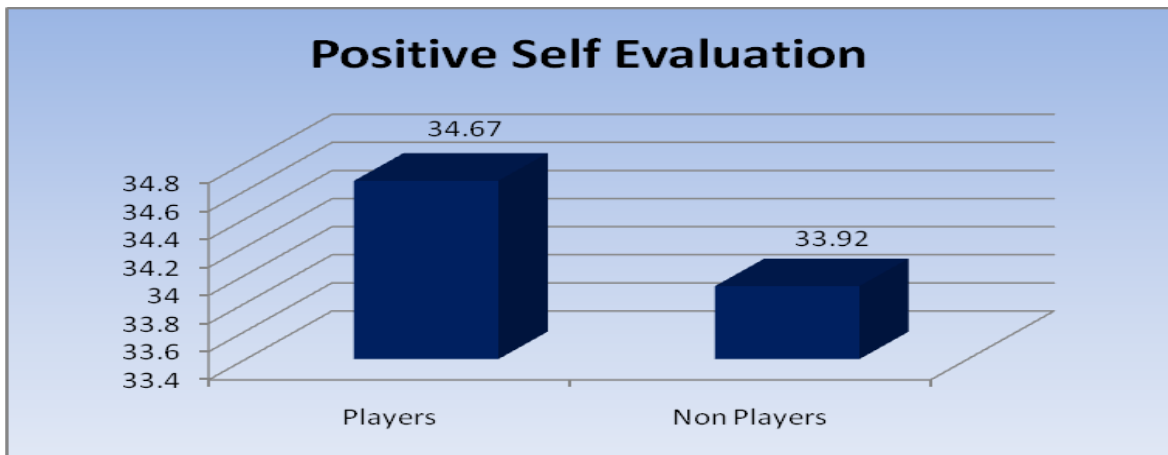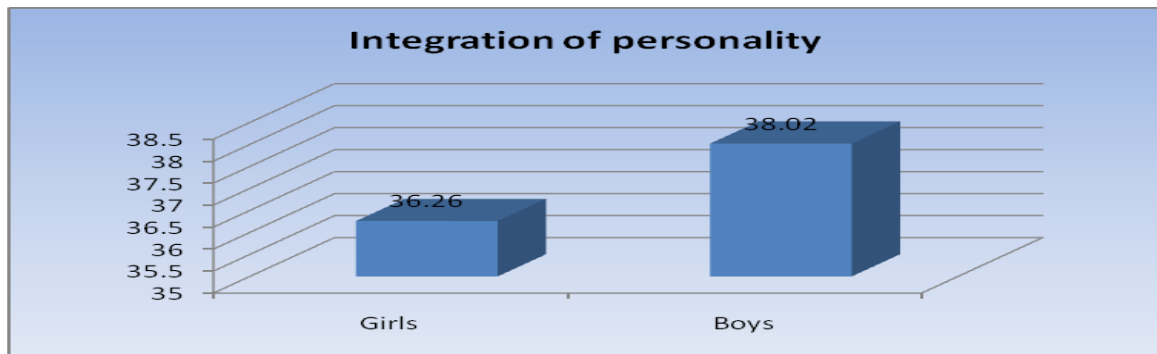
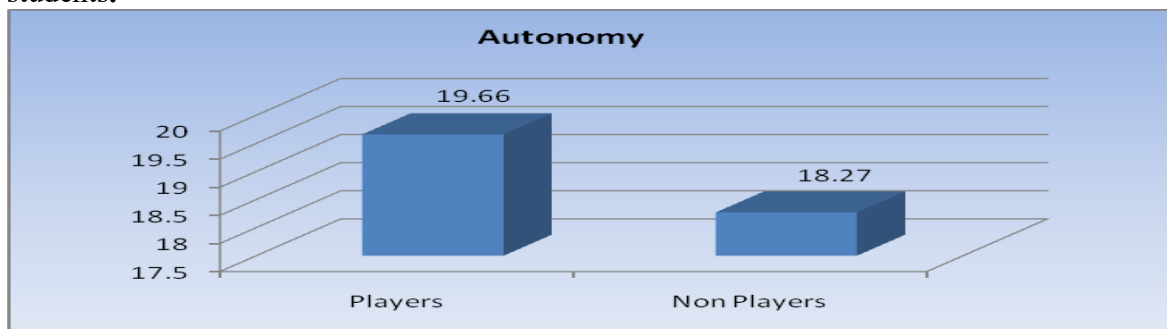**Graph: 5.2.1-** Comparative level of positive self evaluation between Players and non-players school students**.**
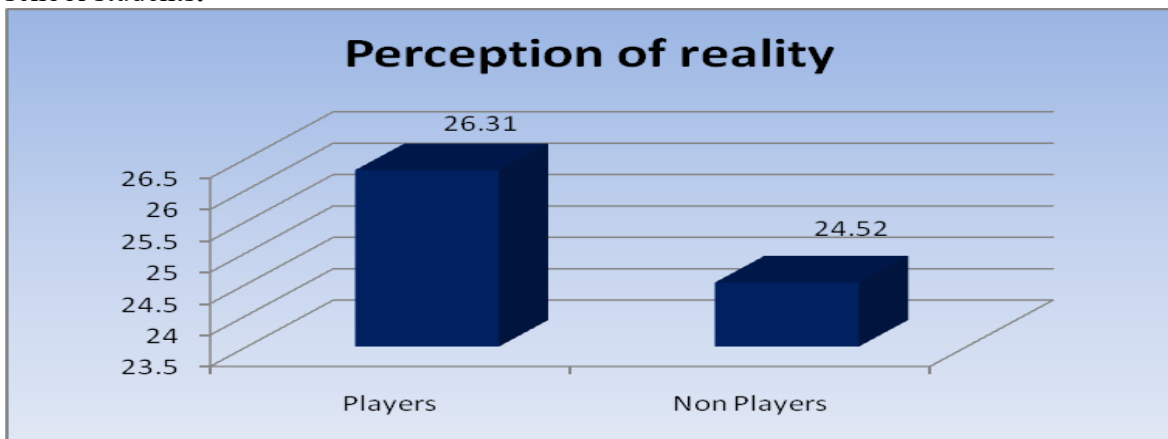
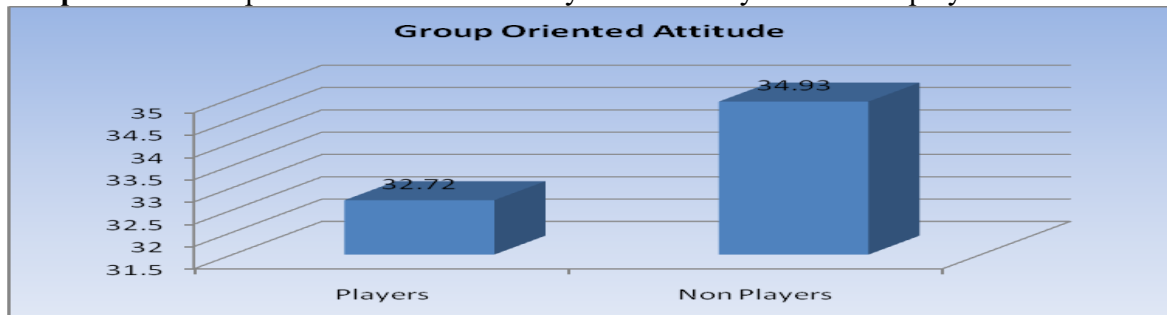**Graph: 5.2.2-** Comparative level of perception of reality between Players and non-players school students
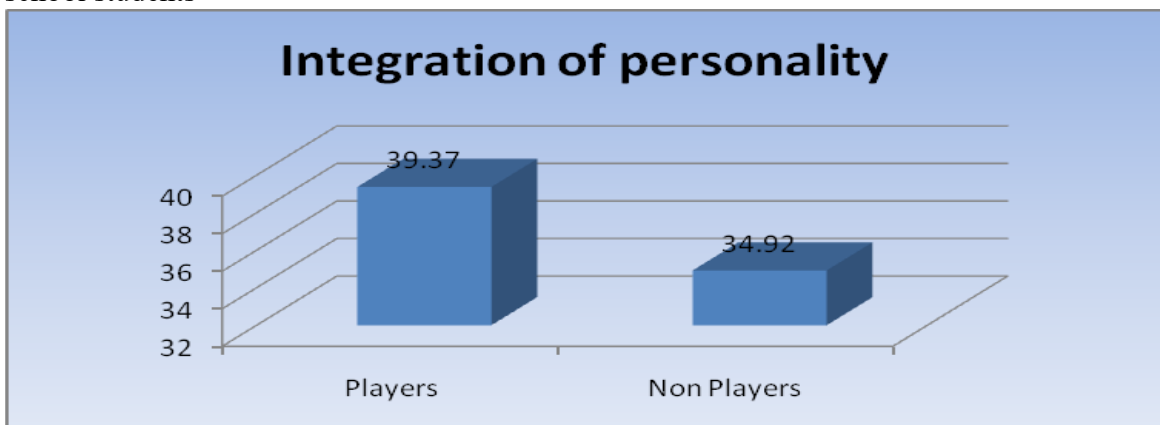
Graph: 5.2.4- Comparative level of integration of personality between boys and girl students**.**
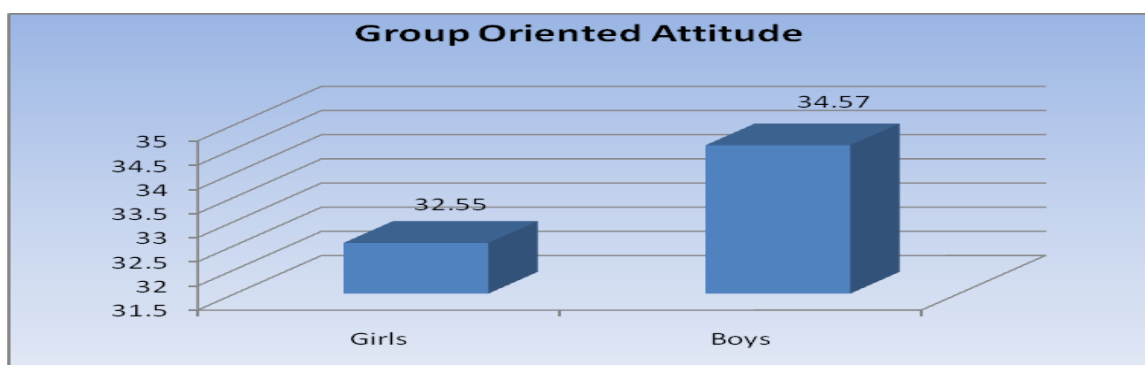
Graph: 5.2.4- Comparative level of integration of personality between boys and girl students**.**
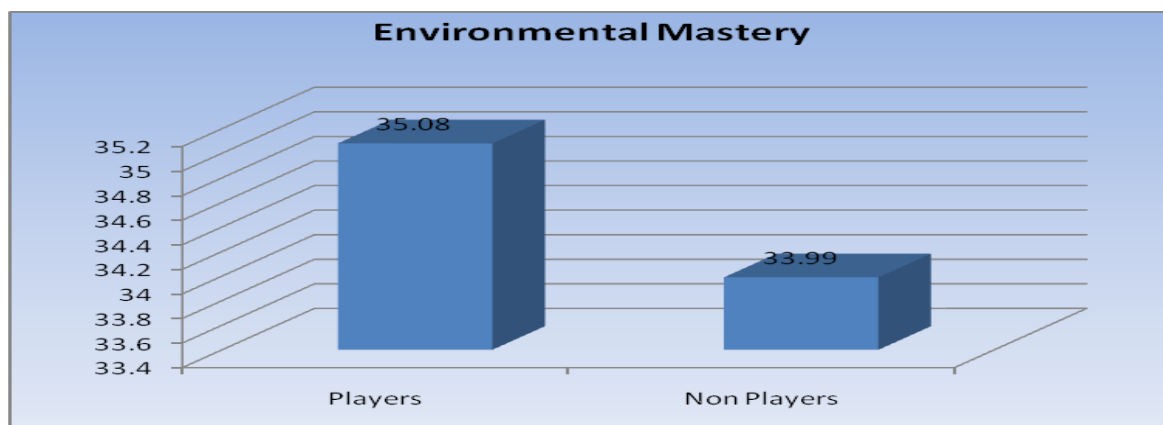

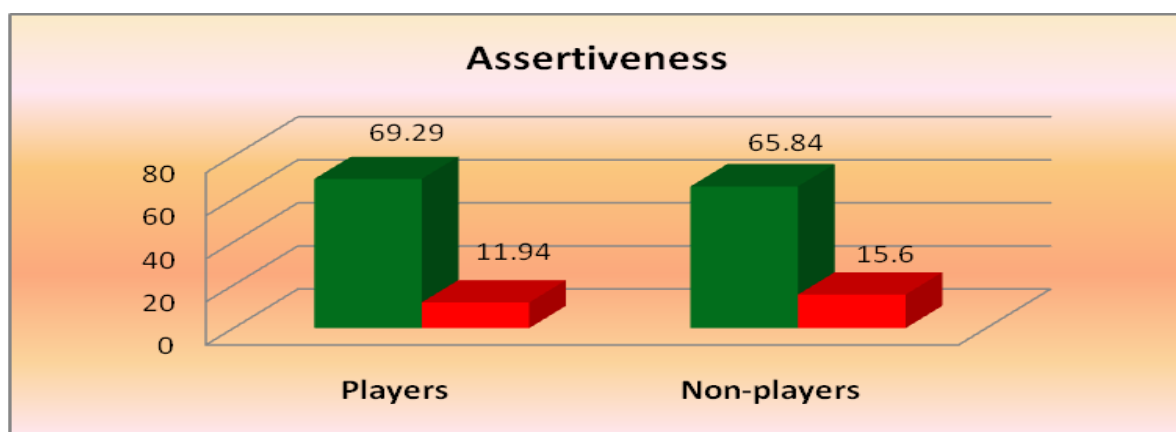**Graph: 5.2.5** Comparative level of autonomy between Players and non-players school students**.**

Graph: 5.2.6- Comparative level of group oriented attitude between Players and non-players school students**.**

Graph: 5.2.7- Comparative level of group oriented attitude between boys and girl students**.**

Graph: 5.2.8- Comparative level of environmental mastery between Players and   non-players   school students.

Graph: 5.2.9- comparative level of assertiveness between Players and non-players school students.

4. DISCUSSION

The study of the effect of physical education training and its impact on mental health, assertiveness etc. should also be made on different samples such as general population, illiterates and various sub-cultural groups so that broader generalizations may be arrived at. In this endeavor different types of training of physical exercises should be studied.

In any consideration of demographic antecedents of childrearing practices in the population from which the sample has been drawn should be studied. In this connection, studies of parent-child relationships, early childhood experience and family structure, in relation to physical exercise, are necessary. Such studies need to be made on different samples.

In one study, Tuckman, Bruce W.; Hinkle, J. Scott (2006) have been Compared the effects of running to those of the normal physical education program among 154 4th, 5th, and 6th graders who were randomly assigned to conditions. The running program consisted of 3 30-min sessions per week for 12 wks in lieu of attendance in regular physical education classes. Findings show that although boys tended to run faster than girls overall and that older children ran faster than younger children, running Ss performed better on an 800-m run, had lower pulse rates, and performed better on a test of creativity than did regular physical education participants. Running was judged effective for enhancing the cardio respiratory health and creativity of school children.

Relevance of several factors to players' aggressive behavior has been extensively studied. Sport-related factors were studied in the framework of context-personality (Isberg, 1985, 1986, 1989) or context-gender (Rainey, 1986; Kemler, 1988; Bond & Nideffer, 1992) relationship. Teams' moral atmosphere, team norms regulating aggressive acts, and players' perception of these norms are mentioned to be important in this circumstance (Stephens & Bredemeier, 1996). Difficulty of the task (McGowan & Schultz, 1989) and use of anabolic steroids (Lefavi, Reeve, & Newland, 1990) also appear to be relevant to aggression in sport. The relevance of communicating factors was also studied (Hanin, 1980) and practically discussed (Hanin, 1992).

5. CONCLUSIONS

Findings are substantial and relevant on the line of hypotheses. These salient results are mentioned here in brief.

1. The effect of physical training has been found in type of student. I.e. Students who involved in physical education activities are show better mental health characteristics than those who are not involved in physical activities'.
2. Gender difference has found in terms of mental health. Boys student of secondary education have better mental health than girl students.
3. According to assertiveness trait of personality, it is found that students who involved in physical education activities are more assertive than those who are not involved in physical activities.
4. Assertiveness trait is equally works in boys and girls. No gender difference is found in terms of assertiveness.
5. Significant relationship is found between physical training and mental health of the students. There is a positive relationship between physical education and mental health.
6. As well as assertiveness is associated with physical education training. There is a positive relationship between physical education and assertiveness.

6. FURTHER DIRECTION FOR RESEARCH

There is ample scope to carry out the research in this area. A widespread research be carried out in the area of family related structures. Besides the variables studies in this research, the researcher can study variables such as area of residence i.e. urban and rural, caste, culture, religion, etc. Systematic studies with other standardized tools should be done on the basis of school students attitudes and aspirations about life. There should be provision of the participants with lack of infrastructure of playing materials, guidance and training centers to increase the achievement level, assertiveness and coping styles of anxiety on grass root level of resident area that will be helpful to enhance an achievement motivation among students.

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