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Gender Differences On Anxiety, Aggression And Stress: An Analysis

1Dr. Rameswaram Satyaprakash

1Assistant Professor, Department of Physical Education, Jenney's College of Physical Education,
Thiruchirappalli – 620009, Tamil Nadu, India

Abstract

A sound body and a sound mind are man's most precious possessions. Man needs to participate in physical activities to develop his mind and body. The child first starts to move and gradually improves to run, throw, jump, climb according to its interest. So physical education is needed for each and every individual for a better growth and development. Physical fitness is the very basis of our daily life and a sick nation cannot produce healthy attitudes and economically productive capacities. Physical fitness is a universally accepted and realized terminology. Physical fitness is a capacity to meet the present and potential physical challenges of life with success. The present concept of physical fitness is not only freedom from diseases but also to gain enough strength, agility, flexibility, endurance and skills to meet the demands of daily life and to build sufficient reserve energy to with stand stress and strain. Fitness improves general health and it is essential for full and vigorous living. The physically fit child will be more alert and eager to do things. The wealth of a nation depends entirely upon the health of every citizen of the country. Hence physical fitness of school children is a major important factor to be considered. Physical fitness is an important outcome of physical education and it is physical education in the school system that is most capable of bringing it out. The physical fitness over a long span and examination of the same reflect the status of health. Physical examination assess the growth pattern and functional efficiency of sensory and motor organs, functional efficiency of the body in terms of strength, cardio respiratory endurance, flexibility speed, agility, balance and neuromuscular co-ordination. In this connection present this research paper highlighted on gender differences on anxiety, aggression and stress selected respondents of handball players

Key words: Agility, Anxiety Aggression Child, Flexibility, Gender, Physical and Stress

1) Introduction:

A sound body and a sound mind are man's most precious possessions. Man needs to participate in physical activities to develop his mind and body. The child first starts to move and gradually improves to run, throw, jump, climb according to its interest. So physical education is needed for each and every individual for a better growth and development. Physical fitness is the very basis of our daily life and a sick nation cannot produce healthy attitudes and economically productive capacities.

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Fitness improves general health and it is essential for full and vigorous living. The physically fit child will be more alert and eager to do things. The wealth of a nation depends entirely upon the health of every citizen of the country. Hence physical fitness of school children is a major important factor to be considered.

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Physical fitness is a combination of qualities that enable a person to perform well in vigorous physical activities. These qualities include activity, endurance, flexibility and strength. Physical fitness and good health are not the same, though each influences the other. Physical fitness represents one of the several facts of sports and physical activity which can have definite influences on the health and the well being of children and adolescents, as well as adults. The measurement of physical fitness raises several conceptual, methodological and technical problems, which explain why surveys including such measures have been scarce until recently.

2) Psychology:

Modern man lives in a mental world in which the important skills of success are based on his psychological activities. Increasing pressures on human mind in the pursuit of materialistic philosophy are making inroads into the happiness of life. Moreover, the twentieth century is a revolt against the traditional practices prevalent in the past. To keep pace with the fast and vast changes that are taking place in the various disciplines, there is a tremendous demand and responsibility cast on the training system to meet the challenges of preparing men and women to achieve tasks with success and excellence. Sports is no exception to this and so emphasis is placed on psychological aspects of a player to attain success (Mohan et.al. 1986)

Psychology is an academic and applied discipline involving the scientific study of mental functions and behavior. Psychologists study such phenomena as perception, cognition, emotion, personality,

behavior, and interpersonal relationships. Psychology also refers to the application of such knowledge to various spheres of human activity, including issues related to everyday life (e.g. family, education, and employment) and the treatment of mental health problems. Psychologists attempt to understand the role of these functions in individual and social behavior, while also exploring the underlying physiological and neurological processes. Psychology includes many sub-fields of study and applications concerned with such areas as human development, sports, health, industry, media, and law.

3) Sports Psychology:

In this modern era of competition the psychological preparation of a team is as much important as teaching the different skills of a game on the scientific lines. The teams are prepared not only to play the games, but to win the games. And for winning the game, it is not only the proficiency in the skills which bring victory but more important is the spirit of the players with which they play and perform their best in the competition.

Within a short span of time, sports psychology has taken giant strides. Not it does claim to be a full-fledged discipline in the sense that no training of sportsman is considered complete without adequate emphasis on "psychological conditioning" which plays an extremely important role in competitive sports. Competitive sports reflect cultural aspirations of a people and they have now become an inextricable part of all civilizations. Recreative sports are mainly concerned with man's well being where as competitive sports aim to measure and enhance human "potentiality and performance". All other things being equal in two opponents, in sports, the one with better "psychological training or mental conditioning, will always have an upper edge over the other" (Kamlesh, 1988).

Psychology of sports is an application of psychology in the field of sports and games. In other words, it is the psychological approach to sports and games, in order to make them efficient, fruitful and interesting. (Mohan et.al. 1986). Psychology of sports is a branch of psychology that examines various aspects of activities and physical culture. It also studies the psychological aspects of athlete's personality. It develops diagnostic techniques for selecting persons of specific sporting events and effective training methods. Sports psychology examines the athlete's "psychic state" in various complex situation Perhaps one of the most significant contributions of sports psychology 'in recent years is the attempt by many sports psychology educators, researchers and clinicians to more clearly define, explain and refine psychology as involved in sport and exercise settings. The vagueness of the field is being replaced by a more solid structure and the ability to communicate more intelligently about its role and -function. Research efforts from all parts of the world are helping to create scientific foundations for sports psychology.

In the words of Yuri Hanin, (1996) "Key note speaker at the first IOC world congress on sports sciences", applied sports psychology today nationally, internationally and cross culturally has a great potential to solve the most complicated problems as related to athletic performance at the Olympic level of competition.

The application of psychological principles to the improvement of performance in sports has received greater attention in these days. There are certain accepted psychological principles which have to be

applied, so that the athletes and players are able to show their best in their performances. Coaches, physical educationists and sports scientists have always expressed a great need to know more about those psychological principles, which are helpful in improving the motor skills of the players. It is important to know about the role of reaction time, movement time, emotional phenomena like competitive anxiety and some personality traits like extroversion and neuroticism of the players during training as well as competitive situations (Ayajit Singh, 1996).

Psychology of sports encompasses many topics. National and international sports psychology conferences usually focus on subjects such as motivation, aggression, anxiety, and personality. Of this personality has received the most attention in recent research.

Bucher and Dvest (1982) says that psychology as a behavioural science has made its contributions for improving sports performance. It has helped coaches to coach more efficiently and athletes to perform more proficiently. This psychological aspects on sports is gaining much attention among sports administrators. A rapidly growing area of interest in sports psychology concerns the same of stress management, procedure such as bio feed back and relaxation training to enhance athlete's performance by reducing the stress and anxiety.

Kamalesh (1988), says psychology is the science of the activities of an individual in relation to the environment. The activity of the soul or the mind in other words is the internal behavior manifested through the physical or the outer for thinking and doing are point on the same stretch and are inseparable struggle for survival.

Preponderance of scientific evidence obtained from different investigations have revealed that apart from somatic and physiological variables, techniques and tactics etc. high level performance of sportsmen depends upon his psychological makeup. Different psychic abilities play a decisive role in achieving performance in track and field events. Winning in international sports competitions highly depends on the psychological abilities. Therefore psychological fitness and training of individual are important factors which help in achieving outstanding performance.

The psychology can help the sports excellence by the sportsman. Role of psychology in selection, training materials and rehabilitation would definitely help in achieving sports excellence. The emphasis has been laid on pointing out that psychology and sports coverage at the point and excellence in sports can be optimally obtained by developing appropriate strategies.

4) Anxiety:

In recent years the understanding and implementation of real relationship between the "psycho" and the "soma" in various discipline a new avenue has been opened for physical educationist to devise suitable physical education programmes to prevent and cure those disorders that appears to result from disturbances in the relationship between the "psyche" and "soma" which are usually called psychosomatic disorders. In these disorders 'anxiety' appears to be the root cause which may result from any of the several Psychological disorders like hate, envy and conflict. This anxiety is manifested in different forms and in varying degrees of intensity affecting the behavioural patterns of individuals.

In view of the growing importance of anxiety in the diverse fields of human activity, psychiatrists,

educationists and physical educationists depend on the method of measuring individual anxiety level in most of their investigations. As accurate diagnosis and prognosis in different psychosomatic disorders depend on the exact measurement of the intensity disorders and the nature of anxiety, an investigation into the various method of measuring anxiety.

Anxiety is both a trait and state. As a trait, anxiety is more or less permanent inborn characteristic of human personality and as a state, it is a universal, environmental phenomenon. "Anxiety is one of the important psychological factors influencing sports performance. Anxiety, a complex emotional state, may be characterized as a general fear or forbidding usually accompanied by tension. It is related to fear of failure, either real or anticipated".(Sivaramakrishnan, 1992)

5) Anxiety and Sports Performance:

Anxiety is a transitory emotional state or condition of the human organism that is characterized by subjective, consciously perceived feeling of tension and apprehension and heightened autonomic nervous system activity. A variety of physiological reactions such as increased heart rate, rapid shallow breathing, sweating, muscle tension and drying of the mouth are associated with anxiety.

Anxiety affects psychological and physiological working of the organism in numerous ways. For instance, anxious individual are set to have reduced attention control. Anxiety may be a motivating factor or it may interfere with successful athletic performance. As a positive motivating force, it can be instrumental in motivating the athlete to work harder and to find new and better way to improve performance and to help set goals. The athlete who uses his anxiety in this way will seek out ways to improve himself. This not only reduces his anxiety but helps him increase his athletic skills and his self confidence. As a negative motivating force, anxiety may interfere the productive as well as constructive thinking. Athletes may attempt to handle anxiety by denying their mistakes and weakness and thus developing the repulsive sense to work hard. This can lead to the development of poor work habits or athletic inefficiency. These often lead to lack of confidence and increased quantum of negative thought in athletes' mind. When an athlete becomes anxious, the blood pressure becomes elevated, the breathing becomes more rapid and oxygen consumption increases. He may experience nausea, light headedness and feeling fatigue or weakness. He may yawn frequently, begin to tremble or engage in nervous activity (bite his nails, wriggle his leg, twirl his hair etc). He may sweat profusely, urinate frequently or have loose stools. He may have difficulty in muscular tension He may even have difficulty in breathing as the muscles of the neck and throat tense up causing him to choke(literally and figuratively).

6) Need of Anxiety:

Anxiety is related to emotional stability, tough mindedness and self confidence. The more stability in toughness and confidence enables the person to handle anxiety and convert it into something very productive. The ability to deal effectively with anxiety is one of the prime considerations in athletics. Each athlete must learn to cope with anxiety involved in his career. The various behaviors indicating anxiety are rather desperate or often hard to recognize and anxiety reactions. What the athlete might do about anxiety is equally varied and unpredictable because it affects the entire organism of an athlete especially in competition.

Anxiety is considered a psychological manifestation involving all dimensions of athletes, such as physiological behavior and psychological process, Burton (1988) Anxiety has an important correlative factor of sports performance has been probed into extensively as well as intensively under various field as well as laboratory conditions. During the past decade anxiety as 'fear' as 'arousal' as 'activation level' etc was scheduled with reference to individual difference in the personality trait structure of the athletes and the nature of the events and under competitive situations that trigger off anxiety (fear).

Anxiety differs from arousal. It encompasses some degree of activation unpleasant emotional state. Basically there are three types of anxiety such as a) State anxiety b) Trait anxiety c) Competitive anxiety.

The concept of sports competition anxiety cropped up just a little more than a decade ago.

Marten (1997) defined competitive trait anxiety as a tendency to perceive situations and respond with feelings of apprehension or tension. On the other hand, the anxiety reaction triggered by a particular competitive situation is called competitive state anxiety.

The term competitive anxiety, a recent innovation particularly in the games and sports context, denotes anxiety experienced in a situation where the athletes must achieve an optimal level of performance that should be higher the performance level than equally competent competitor. That is perhaps why sports competition anxiety has become a crucial concern among sports psychologists. State anxiety is transitory state and fluctuates overtime and is characterized by subjective, consciously perceived feelings of apprehension and tension accompanied by or associated with activation or arousal of the autonomic nervous system.

Trait anxiety is a motive or acquired behavioral disposition that predisposes an individual to perceive a wide range of objectively non dangerous circumstances as threatening and to respond to these with state anxiety reactions disproportionate in intensity to the magnitude of the objective danger.

7) Reasons for Selection of Topic

Like any other game Handball is a team game, which requires moderate level of anxiety, aggression and the play situation creates considerable amount of stress. The uncontrolled anxiety, aggression and stress would harm the playing ability of such players and there was need to find out whether the players are possessing only the required level of anxiety, aggression and stress which would contribute for the successful game or they have reached the levels that would harm their playing situations. This required an indepth research to assess their levels of anxiety, aggression and stress. In this study the investigator is further interested to find out the gender differences in anxiety, aggression and stress of handball players.

8) Objectives of the Study:

The objective of this study was to find out the status of selected psychological variables, such as anxiety, aggression and stress among handball players and to compare the selected variables between men and women handball players to find out the gender differences

9) Statement of the Problem:

The purpose of the study was to make an analysis of gender differences on anxiety, aggression and stress among handball players.

10) Hypotheses:

It was hypothesized that:

There would be no significant difference between men and women handball players' anxiety.

There would be no significant difference between men and women handball players' aggression.

There would be no significant difference between men and women handball players' stress.

11) Significance of the Study:

1. The present study would acquaint the physical education administrators with the psychological factors anxiety, stress and aggression among men and women handball players.
2. It would facilitate to find out the differences among the two groups of players.
3. It would facilitate to find out the whether these groups of players have any significant differences in the selected psychological variables.
4. The results of the study would add further knowledge to the existing literature of psychological variables..
5. The findings of the study would provide a guideline to the future research investigators in psychology, sports psychology and sports sciences to conduct further research in this field.

12) Methodology:

This chapter provides an overview of the method used for the research study. Under this part of the research method, subjects/ tools, variables, design and statistical techniques used are described in view of testing the formulated hypothesis.

The purpose of the study was to make a comparative analysis of selected psychological, socio economic and motor fitness variables among athletes and non athletes.

Selection of Samples:

To facilitate the study, 140 handball players (70 male and 70 women) were selected randomly from Sri Venkateswara University, Tirupathi, Andhra Pradesh. The subjects were selected in the age group of 19 to 28 years.

The requirements for the collection of data through administration of questionnaires were explained to the subjects so as to avoid any ambiguity of the effort required on their part and prior to the administration of the questionnaire. All the subjects participated in this study voluntarily and responded to the questionnaire without bias.

Selection of Variables:

The research scholar reviewed the various scientific literatures pertaining to the selected psychological variables from books, journals, periodicals, magazines and research papers. Taking into consideration of feasibility criteria, availability of instruments and the relevance of the variables of the present study, the following variables were selected.

Dependent Variables

Anxiety

Stress

Aggression

Independent Variables

1. Seventy men Handball players
2. Seventy women Handball players.

Research Design:

Independent randomized research design was used for this study, as the subjects were selected randomly from four independent groups. The responses obtained through standardized questionnaire to measure all the two group self on selected variables, anxiety, aggression and stress. The collected data were subjected to statistical treatment to find out any differences between the groups in the dependent variables selected.

Criterion Measures

By glancing the literature, and in consultation with professional experts, the following variables were selected as the criterion measures in this study.

Sports Competitive Anxiety Index (SCAI) authored by C.D. Spielberger (1976).

To measure stress Everly and Girdano' Questionnaire on Stress Scale was used.

To measure Aggression, Dr. Guru Pyari Mathur (Raebareli) and Dr. Raj Kumari Bhatnagar (Agra) Issued by Rakhi Prakashan, was used

Reliability of Data:

The reliability of data was ensured by establishing the instrument reliability and questionnaire reliability, tester's competency and subject reliability

Instruments Reliability

The questionnaires administered were used in assessing the selected psychological factors for years together by various psychologists. Apart from this, the researcher found the questionnaire tested the reliability and validity of the tests and the key for scoring the responses. These were taken as correct and thus the reliability of the questionnaire found by the authors were accepted for the purpose of this study.

Tester's Competency

The researcher read out the questionnaire to the subjects and obtained the responses personally. They were asked to respond to each and every questions asked in the inventory and responded within the time prescribed for this purpose. Since the investigator was qualified enough to administer the questionnaire, the repeated measurement of individuals on the same test was done and the testers competency was proved.

Tools Used

Assessment of Stress

The standard psychological tool device by Everyly and Girdano's was used to quantify psychological stress. This test consists of 14 statements. Each statement consists of 4 responses: Almost always; true; usually true, seldom true, never true.

All the statements are positive in nature. The respondents made a tick mark (✓) on any one of the responses that fit to them best.

Hence the inventory in its original form was made use of in this investigation. A copy of questionnaire is given in appendix I.

Scoring

The inventory was scored with the help of a scoring key which is given below. The scoring obtained for each statement was added and it was treated as individual score. The total score constituted the psychological stress score. The range of psychological stress score of the subject is given in appendix.

This questionnaire measures time urgency, competitiveness and hostility, polyphonic behaviour (trying to do many things at a time) and lack of planning. It consists of 14 items and it tries to measure the degree of stress of the students for every item, four alternatives are given from very high to very low.

Method of Scoring

There are four alternative responses to each item. There are (a) almost always true (b) usually true (c) seldom true and (d) never true. The subject is to check one of the four as it suits to him in accordance with the idea expressed in the respective statement. The alternative answers are assigned weights from 3 to 0.

Response	Value
Almost always true	3
Usually true	2
Seldom true	1
Never true	0

The 0 scores indicate a very low degree of stress and a score of 3 indicates very high stress level in the individual. The sum of all the weights assigned to all items in the total stress score of the individual. The minimum score is 0 and the maximum score is 42. The low score indicates low level of stress and high score indicates the high level of stress.

Aggression

Aggression of the college men players under study were measured through Aggression Scale test developed by Guru Pyari Mathur and Raj Kumari Bhatnagar (2004).

Description of the Questionnaire

The aggression scale questionnaire consists of fifty five statements. The subjects have to answer the statement in the graded manner, namely, strongly agree, agree undecided, disagree and strongly disagree. The level changes from extremely uncharacteristic to extremely characteristics. ; The respondents were made to mark '✓' against the box provided for this purpose. This represents the appropriate

characteristics suited to their attitude Scoring. This inventory was scored with the help of the scoring key given below. The range of score was from 275 to 55. The higher the score is the more aggressive the player.

Sl.No	Response	Score of Positive statements	Negative Statements
1	Strongly Agree	5	1
2	Agree	4	2
3	Undecided	3	3
4	Disagree	2	4
5	Strongly Disagree	1	5

Sources: Computed

Anxiety

Anxiety was measured through the anxiety questionnaire. The anxiety questionnaire was designed to measure the degree of anxiety experience prior to the competition.

It was developed by Spielberger.(1979). Spielbergers Trait Anxiety questionnaire was given to all subjects. Twenty items were adopted from Spielbergers Trait Anxiety questionnaire for this investigation. The complete questionnaire is scores as follows:

S.No	Response	Score of Positive statements	Score of Negative statements
1	Not at all	1	4
2	Some what	2	3
3	Moderately so	3	2
4	Very much	4	1

<u>Positive Statements</u>	1,2,5,8,10,11,15,16,19,20
<u>Negative Statements</u>	3,4,6,7,9,12,13,14,17,18

Sources: Computed

Statistical Technique:

The purpose of the study was to make an analysis on gender differences on selected psychological variables, anxiety, aggression and stress among handball players. The collected data were compared between men and women handball players. Hence, the investigator analysed the mean differences between the groups on criterion variables, using students' t' test.

Anxiety Questionnaire

Stt. No	Details of Statements	Not At All	Somewhat	Moderately so	Very much
1	I feel calm				
2	I feel secure				
3	I feel tensed				
4	I feel regretful				
5	I feel at easy				
6	I feel upset				
7	I am presently worrying over Possible misfortunes				
8	I feel rested				
9	I feel anxious				
10	I feel comfortable				
11	I am self confident				
12	I feel nervous				
13	I feel jittery				
14	I feel 'high string'				
15	I am relaxed				
16	I am content				
17	I am worried				
18	I feel over excited and ratted				
19	I feel joyful				
20	I feel pleasant				

Questionnaire on Stress Scale

(Everly and Girdano)

S.No	Statement	Almost Always True	Usually True	Seldom True	Never True
1	I do not like to wait for the people to complete their work before I can proceed for my own				
2	I hate to wait in most times				
3	People tell me that I tend to get irritated so easily				

4	Whenever possible I try to make activities competitive				
5	I have a tendency to rush into that needs to be done before knowing the procedure I will use to complete the job				
6	Even when I go on vacation I usually take some work along				
7	When I make a mistake, it is usually due to the fact that I have rushed into the job before completely planning it through				
8	I feel guilty for taking time off to work				
9	People tell me I have a bad temper when it comes to competitive situations				
10	I tend to lose my temper when I am under a lot of pressure at work				
11	Whenever possible I will try to complete two or more task at once				
12	I tend to race against the clock				
13	I have no patience for lateness				
14	I catch myself rushing when there is no need				

14) Result and Discussion:

The purpose of the study was to make a comparative analysis of gender difference on anxiety, stress and aggression among handball players. To facilitate the study seventy men handball players and seventy women handball players from different colleges in SV University, Tirupathi, Andhra Pradesh, were randomly selected. The subjects were participated at intercollegiate level tournaments representing their colleges. The subjects were selected in the age group of 19 to 28 years. The investigator selected the psychological variables, anxiety, stress, and aggression.

Independent randomized research design was used for this study, as the subjects were selected randomly from two independent groups, namely, men and women handball players. The responses obtained through standardized questionnaire to measure both the groups'on selected variables. The collected data were subjected to statistical treatment to find out any differences between the groups in the dependent variables selected.

The data collected from different both the gender, namely, men and women handball players were compared for the differences. The difference obtained in the selected psychological variables, anxiety, stress and aggression was tested through statistical treatment. Statistical technique students 't' was employed to test the differences from one group of player to another group of player.

15) Conclusions:

Within the limitations and delimitations of this study, the following conclusions were drawn.

1. There was significant difference between men and women handball players on psychological variable of anxiety.
2. Comparing between, men and women handball players, it was found that women handball players were more anxious than men handball players.
3. There was significant difference between men and women handball players on psychological variable, of stress.
4. Comparing between, men and women handball players, it was found that women handball players were more stressful than men handball players.
5. There was significant difference between men and women handball players on psychological variable of aggression.
6. Comparing between, men and women handball players, it was found that men handball players were more aggressive than women handball players.

16) Recommendations:

The results of this study proved that there was significant difference in psychological variables, anxiety, stress and aggression among the men and women handball players. This lead to the conclusion that there was no proper psychological preparation for these handball players, as the subjects was low intermediate level competitors. Hence, it was suggested efforts may be taken to impart adequate psychological preparations for handball players.

17) Suggestions for Further Research:

Based on the experience the investigator gained in this study, the following recommendations are made:

1. Similar studies may be conducted among different sports and games.
2. A study comparing national level players' psychological variables with their playing ability may be undertaken.
3. This study revealed that women sports persons possess more anxiety and stress. Further researches may be conducted with larger number of samples to support the findings of this study.
4. Similar study may be conducted among school level handball players to compare selected psychological variables.
5. Similar study may be conducted to find out the relationship between psychological variables and playing ability.

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